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**UTILITY
PATENT APPLICATION
TRANSMITTAL**

(Only for new nonprovisional applications under 37 C.F.R. § 1.53(b))

Attorney Docket No. A001

First Inventor or Application Identifier James W. Rose

Title Apparatus and Method for an Internet Based Computer Reservation Booking System

Express Mail Label No. EL126003917US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ * Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. ☒ Specification [Total Pages 39]
(preferred arrangement set forth below)
- Descriptive title of the Invention
 - Cross References to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to Microfiche Appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
3. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 31]
4. Oath or Declaration 2 copies [Total Pages 6]
- a. ☒ Newly executed (original or copy)
 - b. ☐ Copy from a prior application (37 C.F.R. § 1.63(d))
(for continuation/divisional with Box 16 completed)
 - i. ☐ DELETION OF INVENTOR(S)
Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).

* NOTE FOR ITEMS 1 & 13: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).

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5. ☐ Microfiche Computer Program (Appendix)
6. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
- a. ☐ Computer Readable Copy
 - b. ☐ Paper Copy (identical to computer copy)
 - c. ☐ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

7. ☐ Assignment Papers (cover sheet & document(s))
8. ☐ 37 C.F.R. § 3.73(b) Statement (when there is an assignee) ☒ Power of Attorney
9. ☐ English Translation Document (if applicable)
10. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
11. ☐ Preliminary Amendment
12. ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
13. ☒ * Small Entity Statement(s) ☐ Statement filed in prior application, Status still proper and desired (PTO/SB/09-12)
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☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No: _____

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17. CORRESPONDENCE ADDRESS☐ Customer Number or Bar Code Label

(Insert Customer No. or Attach bar code label here)

or ☒ Correspondence address below

Name	James W. Rose				
Address	923 Elm Street				
City	San Carlos	State	CA	Zip Code	94070
Country	USA	Telephone	(650) 591-9108	Fax	

Name (Print/Type)	James W. Rose	Registration No. (Attorney/Agent)	34,239
Signature	<i>James W. Rose</i>	Date	4/27/99

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(37 CFR 1.9(f) & 1.27(b))--INDEPENDENT INVENTOR**

Docket Number (Optional)
A001

Applicant, Patentee, or Identifier: Rose et al.

Application or Patent No.: Not yet assigned

Filed or Issued: Herewith

Title: Apparatus and Method for an Internet Based Computer Reservation
Booking System

As a below named inventor, I hereby state that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office described in:

- ☒ the specification filed herewith with title as listed above.
☐ the application identified above.
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James W. Rose
NAME OF INVENTOR

Theodore C. Chen
NAME OF INVENTOR

NAME OF INVENTOR

Signature of inventor

Signature of inventor

Signature of inventor

Date

Date

Date

PTO/SB/09 (12-97)

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James W. Rose
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APPLICATION FOR UNITED STATES LETTERS PATENT
FOR

**APPARATUS AND METHOD FOR AN
INTERNET BASED COMPUTER
RESERVATION BOOKING
SYSTEM**

Inventor(s):

James W. Rose
Theodore C. Chen

Prepared by:

James W. Rose

APPARATUS AND METHOD FOR AN INTERNET
BASED COMPUTER RESERVATION
BOOKING SYSTEM

Related Application(s)

This application claims the benefit of priority under 35 USC §119(e) of provisional application No. 60/083,651, filed April 30, 1998 entitled "Apparatus and Method for a Computer Reservation System that is Accessible Over the Internet", hereby incorporated by reference herein.

Field of the Invention

The present invention relates to computer software, and more particularly, to an Internet based computer reservation system.

Background of the Invention

Since the introduction of web browsers by companies such as Netscape Communications, a division of America On-line and Microsoft Corporation, the Internet has seen an explosion of activity. Businesses, both big and small, are creating web sites to obtain wide exposure, to inform the public of their goods and services, and to conduct Internet commerce. Web sites that are in current use by businesses are of varying sophistication.

The least sophisticated type of web site used by merchants are those that simply present information. These web sites typically display information about the merchant's organization, contact information, and goods or services. These web sites are not interactive and do not permit two-way communication. A person accessing the web site therefore can not provide the merchant information necessary for commerce, such as a product selection, name, ID, credit card number, etc., over the Internet. Accordingly, these types of web sites are not conducive for Internet commerce and are of limited value.

More sophisticated web sites useful for conducting business over the Internet generally provide for two-way communication. These web sites typically include web page(s) to display a merchant's goods and/or services for sale, and pages for allowing a person viewing the web site to make a purchase over the Internet. For example, a web site for a bed and breakfast inn may include photographs and information about the inn. A user accessing the web site may make a room reservation at the inn by selecting a room and a date for the reservation using either pull down menus or typing such information into predetermined fields included on the web site. The information is then emailed to the computer maintaining the web site. The problem with this type of web site is that it is typically a "stand-alone" piece of software, not linked or integral to other computer systems or software the merchant may use in the ordinary course of business. The merchant is therefore required to take the reservation information (name, date, party size, rate, etc.) received by email, and manually enter it into the reservation system ordinarily used by the inn. The merchant is then required to confirm the reservation with the customer by either a return email, by facsimile, or by telephone. The customer does not receive a real-time confirmation. This method is therefore inefficient, cumbersome, and prone to error and leaves the Internet user with an "incomplete" web experience.

The most sophisticated web sites used for Internet commerce typically include databases and are highly interactive. These web sites permit users to perform on-line searching, enter queries, make purchases, and access database information over the Internet. See for example the web sites for Amazon.com (www.amazon.com), and United Airlines (www.ual.com). The problem with these web sites is that they need to be custom created by software experts with a high degree of skill and expertise. These web sites are therefore very expensive and time consuming to create and are well beyond the means of most merchants hoping to conduct business over the Internet.

The vast majority of service oriented businesses that sell an inventory of time-slots (e.g. restaurants, golf courses, bed and breakfast inns, spas, etc.) still use "pencil and

paper” systems to keep track of their reservations/appointments. Unlike eCommerce retailers selling goods over the Internet, these merchants have yet to participate in the Internet revolution. An easy to use, flexible, customizable Internet based reservation software package that enables such merchants to capitalize on the Internet revolution is
5 therefore needed.

Summary of the Invention

The present invention is a software product and system that provides merchants that sell time-slot inventories tools to capitalize on the Internet revolution. The present
10 invention enables the creation of web-sites for merchants with a built-in web-based reservation booking system. This offers customers the on-line benefits of access, selection and immediacy in making real-time reservation/appointments over the Internet. The software product also simplifies the merchant’s booking process by providing a central web-based reservation/appointment management system that can be used for all
15 bookings, regardless if made by telephone, by a walk-in customer, or by a customer via the Internet. The software product also provides the merchant with a powerful direct marketing tool. As a merchant uses the software product, user-customer profiles and demographics are captured in the database module, thus creating (in Web jargon) a “community” of customers specific to the merchant. The merchant is thus empowered,
20 using the mail module, to directly communicate with its customer base, using customer profiles and demographics to create a highly targeted and effective marketing and promotion campaign. The software product also allows the merchant to auction off time-slot inventory over the Internet and to offer incentives to repeat customers, again resulting in increased revenue for the merchant. Lastly, the software product enables the creation
25 of Web “super-communities” consisting of the aggregate of all the individual merchant’s customer-communities using the software product.

Brief Description of the Drawings

Figure 1 shows an exemplary computer network in which the software product of
30 the present invention may be implemented.

Figure 2 shows a block diagram of an exemplary computer on which the software product of the present invention may be executed.

Figure 3 shows a diagram representing the major modules of the software product of the present invention.

5 Figure 4 shows several exemplary “super-communities” created by using the software product of the present invention.

Figure 5A shows an exemplary web home page for accessing the software product of the present invention over a network.

10 Figure 5B shows an exemplary membership sign-up web page for users to become a member of a community created by the software product of the present invention.

Figure 6A is an exemplary web page used for searching for a merchant using the software product of the present invention.

Figure 6B is an exemplary web page encouraging a merchant to become a member of a super-community created by the software product of the present invention.

15 Figure 6C is an exemplary web page encouraging an Internet user to recommend a merchant to become a member of a super-community created by the software product of the present invention.

Figure 7 is an exemplary web page showing the results of a search performed using the search web page of Figure 6A.

20 Figure 8 is an exemplary web home page of a merchant located by the search results found in the exemplary search of Figure 7.

Figure 9A is an exemplary web page for allowing an Internet user to define the criteria for making a reservation booking at the merchant’s place of business.

25 Figure 9B is an exemplary web page for allowing an Internet user to search records of previously made bookings at the merchant’s place of business.

Figure 10 is an exemplary web page that shows the availability of reservations for the Internet user’s search criteria for a booking at the merchant’s place of business.

30 Figure 11 is an exemplary web page that requires the Internet user to submit membership information to confirm a selected available reservation identified in the web page of Figure 10.

Figure 12 is an exemplary web page requiring the Internet user to submit credit card information to hold the reservation.

Figure 13 is an exemplary web page that confirms the booking at the merchant's place of business made by the Internet user.

5 Figure 14 is an exemplary web page that allows a merchant participating in a super-community created by the software product of the present invention to access information specific to that merchant.

Figure 15 is an exemplary web page that provides a merchant with several features performed by the software product of the present invention.

10 Figure 16 is an exemplary web page that provides a merchant access to the bookings at the merchant's place of business for a selected day and allows the merchant to find a reservation for a specific customer.

Figure 17 is an exemplary web page that displays the merchants reservation bookings for a selected day.

15 Figure 18 is an exemplary web page that allows a merchant to enter a booking into the reservation booking display of Figure 17.

Figure 19 is an exemplary web page that allows a merchant to confirm that a party with a booking has arrived at the merchant's place of business.

20 Figure 20 is an exemplary web page that allows a merchant to directly communicate with customers by electronic message.

Figure 21 is an exemplary web site that allows a merchant to access different portions of their web site (Figure 8) for editing.

Figure 22 is an exemplary web site that allows a merchant to edit a selected portion of their web site.

25 Figure 23 is a web super-community created by one embodiment of the present invention.

Figure 24 is a web super-community created by another embodiment of the present invention.

30 Figure 25 is a block diagram illustrating a relational database incorporated into the software product of the present invention.

Figure 26 is a flowchart illustrating the operation of the software product of the present invention.

Figure 27 is an exemplary web page for auctioning time-slot reservations over a network.

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Detailed Description of the Invention

Referring to Figure 1, a block diagram of a computer network in which the present invention may be implemented is shown. The network **10** includes a server **12** which executes the software product of the present invention, a plurality of routers **14**, and a plurality of computers **16** located at remote locations from server **12**. The server **12** and computers **16** are coupled together via the Internet **18**. The server **12** and computers **16** communicate with one another using standard communication protocols, such as TCP/IP. It should be noted that the network of Figure 1 is only exemplary, and the server **12** executing the software product of the present invention and the computers **16** may communicate over any type of computer network, including LANs, WANs, wireless networks, and corporate intranets, and any type of networking protocol may be used including Ethernet, FDDI, ATM, etc. The server **12** and the computers **16** can be connected to the Internet **18** in any manner, including but not limited to using cable modems, standard modems, wireless modems, DLS lines, T-1 lines, etc. or a combination thereof. The server **12** can be any type of server, including but not limited to Unix, NT, Linux and Apple OS type servers.

Referring to Figure 2, a block diagram of the server **12** used to execute the software product of the present invention is shown. The server **12** includes a processor **20**, memory **22**, mass storage **24**, a disk drive **26**, a standard CRT or flat panel computer display **28**, keyboard **30**, mouse **32**, speakers **34** and a network interface **36**. The components **20** through **36** are coupled together and communicate via a system bus **38**. The software product of the present invention is loaded into mass storage **24** of the server **12** in a conventional manner. During operation, the software product is transferred into

memory 22 and executed by processor 20. Information regarding the software product is presented on the display 28. A user may manipulate and use the software product and enter commands into the server 12 using the keyboard 30 and mouse 32. In alternative embodiments, a touch screen display unit may be used rather than a standard display 28.

5 In such an embodiment, the touch screen would operate as an input device and would be used in replacement of or in complement with other input devices, such as the computer's keyboard 30 and/or mouse 32. The network interface 36 couples the server 12 to the Internet 18 or whatever type of network is used to connect the server 12 with the other computers 16. Accordingly, a remote computer 16 can communicate with the server 12
10 running the software product of the present invention and vice-versa.

Referring to Figure 3, a block diagram illustrating the major modules of the software product of the present invention is shown. The software product 50 includes a web helper module 52, a security module 54, a database module 56, a mail module 58
15 and standard application program interfaces (APIs) 60. Each of these modules is described below.

Web Helper Module 52: This module includes a set of templates and icons that will enable the creation of semi-custom web pages. The
20 templates and icons permit a user to easily create a web site. To create a web site, one or more of the templates included in the module is selected. The selected templates are semi-customized for a target application (e.g., restaurants, golf courses, movie houses, etc.) by selecting and dragging icons from a library of icons to locations on the templates and by entering
25 text and graphics onto the templates. The web helper module 52 also includes other tools that allow the user to create browser-friendly, high-content, interactive, multi-media web sites. For example, the web helper module 52 includes features to include clip-art, photographs, video clips, sound bites, etc. In one embodiment, the web helper module 52 is
30 developed using one or more of the following tools: Front Page Express

from Microsoft, Claris Home Page, Adobe GO Live, Adobe Photo Shop, Adobe Image Ready, Microsoft Development Studio. These tools enable the creation of dynamic hypertext web pages that are semi-customized for merchants in a selected vertical market.

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Security Module 54: The software module 54 provides for two types of security, including encryption to protect information sent over the Internet 18, such as user names, credit card numbers, phone numbers, and other personal or confidential information. The security module also includes protection to prevent information in the database module 56 from being stolen or corrupted by persons accessing the server 12 over the Internet 18. Any one of a number of known security techniques may be used. In alternative embodiments, the built-in encryption and password protection features standard on most commercially available servers can be used to prevent unauthorized access to the server 12 and database module 56. A Security Socket Layer (SSL) as offered by many credit card vendors (MasterCard, Visa, etc.) can be used to protect Internet transactions involving sensitive Internet user information, such as credit card numbers, etc.

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The Database Module 56: The database module 56 includes a relational database and search engine. The records, fields, search queries and other features of the database can be fully customizable for any application or semi-customized for a specific application. In alternative embodiments, the database module can be created using Microsoft's Active Server Page technology, SQL server technology, Database Artisan Software, or database products from Oracle Corporation, Redwood Shores, California for example. The details of the database 56 hierarchy and structure are described in greater detail below with regard to Figure 25.

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The Mail Module 58: The mail module **58** includes a feature that enables emails to be sent to selected users from the server **12**. The emails can be manually sent by a person operating the server **12**, they can be automatically generated by the server **12**, or they can be generated remotely from a computer **16** and then sent to other computers **16** by the server **12**. The email module may be configured to automatically query the database module **56** and send email messages to parties entered into the database module. For example, the mail module may generate emails to selected parties as a reminder of a reservation, or to send messages to customers, or to send advertisements to customers.

Standard APIs 60: The software product **50** includes standard APIs **60**, so data and other information can be exchanged with other software systems.

The software product **50** creates and provides a number of compelling advantages for a merchant selling time-slot inventory and seeking to conduct business over the Internet. It enables the creation of web-sites for merchants with a built-in web-based reservation booking system. This offers customers the on-line benefits of access, selection and immediacy in making real-time reservation/appointments (hereafter generically referred to as “bookings”) over the Internet. The software product **50** also simplifies the merchant’s booking process by providing a central web-based reservation/appointment management system that can be used for all bookings, regardless if made by telephone, by a walk-in customer, or by a customer via the Internet **18**. The software product **50** also provides the merchant with a powerful direct marketing tool. As a merchant uses the software product **50**, user-customer profiles and demographics are captured in the database module **56**, thus creating (in Web jargon) a “community” of customers specific to the merchant. The merchant is thus empowered, using the mail module **58**, to directly communicate with its customer base, using customer profiles and demographics to create a highly targeted and effective marketing and promotional ad campaign. The software product **50** also allows a merchant to auction off time-slot

inventory and to run Internet-based promotional incentives to generate repeat business with customers. Lastly, the software product **50** enables the creation of Web “super-communities” consisting of the aggregate of all the individual merchant’s customer-communities using the software product **50**. All of these features, beginning with the super-communities, are described in detail below.

Super Communities

Referring to Figure 4, a block diagram illustrating several Web super communities is shown. The diagram illustrates a server **12** linked to each of four super-communities via the Internet **18**. The first super-community **72**, generally aligned along a food service vertical market, includes a plurality of restaurants **74a - 74n** including but not limited to diners, bistros, cafes, etc. Each restaurant merchant **74a - 74n** has associated therewith a database **76a - 76n** for storing booking information and customer information (a community of customers) associated with the merchant. Similarly, the diagram shows other super-communities **78, 80** and **82** generally aligned along the golf, bed and breakfast, and salon industries respectively. Although not shown for the sake of simplicity, each of the merchants in the super-communities **78, 80** and **82** also have an associated database respectively. The databases for all of the merchants collectively form a large database **13** of merchants and respective customers. It should be noted that any merchant in an industry where bookings by customers are generally made in advance may use the present invention. The invention in no way should be limited to applicability to only these exemplary vertical markets.

Referring to Figure 5, a proposed web home page for accessing each of the super-communities **72 - 82** is shown. The web home page **90**, which in one embodiment is hosted by the server **12**, includes a brief written description of the web site host (in this example, the name of the host is eShock Corporation), a hot link **92** labeled “eCuisine” which provides a link to the restaurant super-community **72**, a hot link **94** labeled “eGolf” which provides a link to a golf super-community **78**, a hot link **96** labeled “B&B” which provides a link to the bed and breakfast super-community **80**. In addition, the web home

page **90** also provides a link **98** to a web page that allows Internet users to become a member of one or more of the super-communities, a link **100** that connects to the home web page of the organization hosting the home page **90** (e.g., eShock) and a link **102** which allows an Internet user to contact the host company via email. For an exemplary membership sign-up form which appears when link **98** is selected, see Figure 5B.

By way of example, the Applicants describe the present invention as it pertains to the restaurant industry. This description, however, should in no way be considered as limiting and the principles and features of the present invention could readily be used, with obvious modifications, for any industry where advanced bookings by customers is commonplace, including but not limited to the golf, bed and breakfast, salon, spa, cinema, sports, performing arts, medical industries, etc.

Internet Bookings

Referring to Figure 6A, an exemplary web home page **110** for the restaurant super-community **72** is shown. The web page **110** appears when an Internet user selects the eCuisine hot link **92** of Figure 5. The web page **110** includes a search window **112** which allows an Internet user to search and find a restaurant(s) by name (data entry field **114**), by city (data entry field **116**), by state (data entry field **118**) and/or by type of cuisine (data entry field **120**). In an alternative embodiment, one or more of the entry fields **114 - 120** can be replaced by or used in complement with a pull-down type menu as denoted by arrows **124**. The data entry fields **114 - 120** and the pull-down menus **124** of search window **112** provide an Internet user with a tool to search and find one or more restaurants affiliated with the restaurant super-community **72**. Entry **114** allows an Internet user to search for a specific restaurant by name. Entries **116**, **118** and **120** allow a user to perform a broader search by city, state and type of cuisine respectively. The search request is submitted by selecting the "GO" icon **121**.

The web page **110** of Figure 6A includes a second data entry window **130** which allows an Internet user to search and find multiple available reservations at different

restaurants **76** affiliated with the super-community **72** and meeting the user's search criteria. The window **130** includes data entry fields to enter a city name (**132**), state (**133**), date (**134**), the type of cuisine (**135**) and a requested time range (**136a** and **136b**). By completing one or more of the data entry fields (**132 - 136**), the user can craft a specific search meeting his or her needs. For example, if the searcher is interested in finding available reservations at Italian restaurants in San Francisco between 6:00PM and 8:00PM on Friday, April 30, 1999, the user is required to fill in the fields (**132 - 136**) and to submit the request by selecting the "GO" icon **137**. This will cause the software product **50** to check the database **76** of the affiliated Italian restaurants in San Francisco at the requested date and time for availability. The hot links (not shown) to the restaurants meeting the search criteria will then be displayed. The user can then peruse the web sites of these restaurants and make a reservation at a selected restaurant over the Internet as described below.

The restaurant home page **110** also includes a link **126**, labeled "Restaurant Sign-Up" which provides a link to a page that allows a restaurant to become a member of the restaurant super-community **72**. See Figure 6B for an exemplary restaurant sign-up page. The restaurant home page **110** also includes a link **128**, labeled "Recommend a Restaurant". Link **128** provides a link to a page that enables an Internet user to recommend a new restaurant to the host of the restaurant super-community **72**. See for example Figure 6C. The web page **110** provides a link **130** labeled "FAQs" which provides useful information about the restaurant super-community **72** and a link **132** labeled "Restaurant Maintenance Center" which will be described in greater detail below.

The restaurant sign up web page (Figure 6B) provides a restaurant with an easy, inexpensive and quick way to become an affiliated merchant **76** in the restaurant super-community **72**. By submitting all of the appropriate information, the host of the server **12** can create the database **76** for the merchant on the server **12**. In addition, the host can create a web site for the merchant using the web helper module **52** of the software product **50**. Using the web page templates, the host can quickly create a web site for the

merchant. All the merchant is required to do is provide the host with the relevant information, such as a menu, specials, wine list, reviews, etc. along with photos and/or other graphics pertinent to the merchant. This information is then “plugged-in” to the templates created for the merchant’s vertical market (e.g. restaurants) and the merchant will have a semi-customized web site interfaced with the on-line reservation system described in this application. Similarly, an existing web site can be updated in an identical manner, thus providing an easy way for the merchant to maintain an up-to-date web site. In alternative embodiments where the merchant already has a web site, that web site can be “seamlessly” integrated with the software product **50** of the present invention by providing the appropriate links between the merchant’s web site and the software product **50** maintained on the server **12**.

Referring to Figure 7, the results for an exemplary search request using search window **112** or **130** is shown. In this example, the search results **140** were obtained by a user entering “California” into data entry field **118** and a “select all” choice for the “Select Cuisine” data entry field **120** using a pull-down menu **124**. As is illustrated in Figure 7, the search results provides a first column that includes hot links **142a - 142n** to the home page of each restaurant meeting the search criteria and affiliated with the restaurant super-community **72**, the second column provides the street address of each restaurant, the third column provides the type of cuisine, the fourth column provides a link **148** to a brief description of the restaurant as published by a restaurant rating organization, such as Zagat’s or AAA, the fifth column provides one or more dollar signs denoting the price range of the restaurant and the sixth column provides links **150** to an Internet “bulletin board” where the Internet user can review comments made by previous diners or enter their own comments regarding one of the restaurants.

The search results **140** provides a wealth of pertinent information that the Internet user can access at a glance or by selecting any of the hot links **142**, **148** and **150**. Not only can the user learn of the type of cuisine or the relative cost of an establishment, they can learn what other patrons think of the restaurant. For example, by selecting a hot link

Referring to Figure 8, the web home page of the “Grandview Restaurant” as listed in the search results **140** is illustrated. This web page **170** appears when the Internet user selects the icon **142a** that corresponds to Grandview. The web page **170** includes a hot link **172** to view the menu of the restaurant, a hot link **173** to view the specials, a hot link **174** to view the wine list, a hot link **175** to view photos of the restaurant, and a hot link **176** to view any published reviews about the restaurant. Although not illustrated and discussed for the sake of brevity, the menu link **172**, the specials link **173**, the wine list link **174**, the photo link **175** and the link **176** to any reviews can be very informative to the Internet user. It provides a restaurateur with the ability to entice customers, by posting menu offerings, specials, wines, etc. and photos of the establishment on the Internet, thus providing exposure of the restaurant to potentially millions of Internet users. The link **176** is also very useful because it allows the restaurateur to post any reviews, for example in a culinary magazine such as *Food and Wine* or *Gourmet* as well as reviews in local newspapers, etc. on the Internet. An Internet user viewing the web site thus has the ability to review a wealth of information regarding the establishment before making a decision to dine at the restaurant.

The web page **170** also includes hot links **177** which enables an Internet user to make a reservation at the Grandview Restaurant over the Internet. Referring to Figure 9, a web page **190** for making a reservation is shown. When the Internet user selects the reservation link **177**, the web page **190** appears. The web page **190** provides the user with

an interface which requires the user to enter the date of the requested reservation into window **192** and the size of the party in window **194**. In an alternative embodiment, this information could be entered into the two windows **192** and **194** using a pull-down menu feature **124**. The web page **190** also includes data entry fields for smoking/non-smoking **193a**, for entering any special dietary requests **193b**, or for informing the restaurant that the Internet user is celebrating a special occasion **193c**. Once the entries are made, the Internet user is required to select the GO icon **195** to submit the request. In an alternative embodiment, the user could select the date by choosing a day from a graphical representation of a calendar.

The web page **170** of Figure 8 also includes a link **178** that enables a user to cancel a reservation made over the Internet. Referring to Figure 9B, a web page **196** is shown. Web page **196** appears when a user selects the “Cancel a Reservation” hot link **178** of Figure 8. The web page **196** includes a data entry window **197** that includes date entry fields for the party name, date of reservation, email address, user ID and password. By entering the appropriate date into one or more of these fields and selecting the “GO” icon **198**, the user can perform a search for all the future reservations containing matching user information in the merchants database **78**. The search results are then displayed to the user along with a “Cancel” icon (not shown) for each found record. By selecting the cancel icon, the corresponding reservation record is removed from the database, effectuating the cancellation of the reservation.

Referring to Figure 10, a web page **200** indicating the availability of a table for the specified party size and date is shown. The web page **200** appears when the user enters and submits the date, party size, etc. in the data entry fields of Figure 9. The web page **200** includes a brief text message **202** which reminds the user of the selected table size and date of the requested reservation. A chart **204** includes a first column **206** that provides a list of all the time-slots at the restaurant for tables of the appropriate size. In the embodiment shown, the time-slots are shown in half-hour increments. This amount of time is arbitrary and any time increment could be used. A second column of hot links

208 indicates if a given time-slot is either “Available” or “Not Available”. To make a reservation, the user simply selects a hot link **208** labeled “Available” corresponding to a desired time, which causes the next web page to appear. When no tables of the requested size are available for a given time-slot **206**, then the corresponding hot link **208** is set to “Not Available” and is deactivated. In other words, if a restaurant has a total of six tables with a seating capacity of four persons, a given time-slot will be labeled “Not Available” only after the sixth table is booked. Consequently an Internet user cannot reserve this time-slot since all the tables are booked.

Referring to Figure 11, a web page **220** requesting information of the Internet user to reserve an available time-slot is shown. This web page **220** appears after the user selects a hot link **208** corresponding to an available time-slot as described above. The web page **220** includes a brief text message **222** indicating that a table for the requested party size and date has been found. The reservation can be made in one of two ways, depending if the Internet user is a member of the super-community **72**. For user-members, the web page **220** includes a first window **224** which requires the member to enter their member ID in a data entry field **226** and a user password in data entry field **228**. The member can confirm the reservation by selecting the “Logon” icon **230** once the fields **226** and **228** are completed. The web page **220** also includes a second window **232** that permits a non-member Internet user to join the restaurant super-community **72** and to confirm a reservation. The window **232** has a number of data entry fields including one for selecting a login name, choosing a password, confirming a password, first name, last name, street address, city, state, zip code, phone, email address and select buttons **234a** and **234b** for allowing the user to indicate if they wish to receive promotional emails. In accordance with other embodiments, the window can be customized to request any other demographics or user information, such as a user’s interests, income, etc. Once a new member has filled in the data entry fields in window **232**, the new member can confirm the reservation by selecting the “GO” icon **236**.

Referring to Figure 12, a web page **240** requesting a user's credit card information to reserve the requested table is provided. This web page **240** appears to the user after the previous web page **220** has been completed and either the "GO" icons **230** or **236** have been selected. The web page **240** requires the user to enter their credit card number into data entry field **242**, the type of credit card into data entry field **244** and the card expiration date in data entry field **248**. This information is then submitted using the "GO" icon **250**. In optional embodiments of the invention, the Internet user may be informed that their credit card will be charged with a transaction fee and/or a no-show fee as provided in the text message **252**.

Referring to Figure 13, a web page **260** which includes a brief text message **262** indicating that the requested reservation has been confirmed at the requested date. When the "GO" icon **250** of Figure 12 is selected, the user information is written into a record corresponding to the selected time-slot in the database **76** affiliated with the merchant. When the reservation is made, the mail module **58** generates and emails the message **262** to the user, thus providing a real-time confirmation of the reservation.

The aforementioned description of the software product **50** provides Internet users with a number of benefits. It empowers Internet users to easily search and find merchants in a selected vertical market and it provides such users with 24/7 access to making reservations, not just when the merchant is open. It provides users with a wealth of on-line information about each merchant participating in the super-community. It also provides immediacy in allowing users to see both the available and not available time-slots at a glance and immediate "delivery" in the form of an instantaneous confirmation of a reservation. Since the process is automated, it also eliminates many of the "hassles" of making reservations, such as calling a restaurant and being placed on hold, lost reservations, etc.

Merchant Maintenance

The software product **50** also provides numerous benefits to merchants participating in the super-community. The software product **50** naturally creates a community of the merchants' Internet user-customers, allowing the merchant to simply and cost-effectively increase revenues by: (i) increasing its customer traffic through email-based direct marketing to a community of Internet user-customers; (ii) providing a wide-reaching electronic forum for customers to receive information about the merchant and "word-of-mouth" endorsements via the community of participating Internet user-customers; and (iii) gain wide exposure and attract new customers through the super-community which attracts a large number of Internet users having an interest aligned with the vertical market of the merchant. In addition, the software product **50** automates and simplifies the merchant's bookkeeping and reservation/appointment tracking system and provides valuable traffic statistics and user demographics that can be used by the merchant to optimize business results. These features and advantages of the software product **50** are described in detail below with regard to the restaurant super-community **72**. Of course these same features and advantages are also available to merchants in the aforementioned other vertical communities.

Returning again to Figure 6A, hot link **132** labeled "Restaurant Maintenance Center" is provided on the web page **110** for merchants participating in the restaurant super-community **72**. This link provides individual merchants with access to their specific booking information, direct marketing tools, and tools permitting the merchant to update their web site, for example as provided in Figure 8.

Referring to Figure 14, a web page **280** entitled "Restaurant Center" is shown. The web page **280** appears when the hot link **132** of web page **110** is selected. The web page **280** includes a text message **281** inviting a non-member restaurant to join the super-community **72** and for participating restaurants to log-in using window **282**. Window **282** includes data entry fields **284** and **286** which requires the merchant to enter their unique user name and password respectively, which were defined by the user when they

became an affiliated member of the super-community (See Figure 6B). The merchant is then required to select the “GO” icon **288** to access the information specific to their establishment. Since only the merchant has their unique user name and password, no other party can gain access to the merchant’s web site, customer database and booking information contained in the merchant’s database **76**.

Referring to Figure 15, a web page **300** is shown. Web page **300** appears after a merchant who is a member of the super-community **72** enters their correct user name and password on web page **280**. Web page **300** includes a text message **301** that informs the merchant that they can manage their table bookings, perform direct marketing to their Internet customer base, and that they can revise their web site. To perform these functions, hot link **302** entitled “Reservation Manager”, hot link **304** entitled “Direct Marketing”, hot link **305** entitled “Revise Web Site”, hot link **306** entitled “Create Table Reservation Template”, and hot link **308** entitled “Log Out” are respectively provided. The “log out” hot link **308** will return the merchant to the Restaurant Search page **110** when selected.

Referring to Figure 16, a web page **310** is shown. The web page **310** appears when the merchant selects the Reservation Manager hot link **302**. The web page **310** includes a window **311** that includes a select date entry field **312** and a select party size data entry field **313**. In alternative embodiments, the data to be inserted into fields **312** and **313** using pull down type menu arrows **124**. To view all the bookings at the restaurant or to make a new reservation on a given day, the merchant is required to enter the desired date into field **312** and then select the “GO” icon **314**. By entering a specific size (e.g., “2”), only tables for two will be displayed when the request is submitted. The web page **310** also includes a Customer Search window **315**. This window includes data entry fields for a customer’s last name (**316a**), first name (**316b**), phone number (**316c**) and email address (**316d**). By entering the relevant information into one or more of the data entry fields **316(a-d)**, the merchant can perform a search inquiry to locate a previously made reservation made by the customer when the “GO” icon **318** is selected.

This is accomplished by searching the database 76 affiliated with the merchant for a matching record. When the record is found, the corresponding reservation time-slot (as described below) is highlighted.

Referring to Figure 17, a web page 320 is shown. The web page 320 appears when the merchant selects either the "GO" icons 314 or 318 of a web page 310. The web page 320 includes a text message 322 that indicates the selected date and a spreadsheet 324. The spreadsheet 324 includes a first row 326 which identifies the table numbers for all or some of the tables in the restaurant, a second row 328 indicates the table size of each listed table, and the remaining rows 330a - 330z designate time-slots 332. For each row 330, a time-slot 332 is provided for each table listed in row 326. In the embodiment shown in Figure 17, the time-slots are spaced apart in fifteen minute increments for both the lunch hours (11AM - 2PM) and dinner hours (5PM - 9:15PM). In alternative embodiments, the time-slots can be selectively incremented by any timing interval and the lunch and dinner hours can be defined by any time periods respectively, depending on the merchant's requirements. When a Party has made a reservation, the Party's name will be entered into the reserved time-slot 332 and is highlighted on the spreadsheet 324. This feature allows the merchant to quickly locate the Party's reservation. By way of example, the spreadsheet shows that Stephen Spielberg has a table for 2 reserved at 12PM on April 23, 1999 and that Sandra Bullock has a table for 2 reserved at 11:45AM on this same date. The time-slots 332 for tables that do not have a name entered therein are available for reservation. The web page 320 also includes a data entry field 334 which allows a merchant to type in a Party's name. When the "GO" icon 336 is selected, the time-slot 332 reserved in the Party's name is highlighted. This feature thus provides a quick search tool to find a reservation on the spreadsheet 324.

The software product 50 accommodates all the possible ways a customer can make a reservation at the merchant's establishment. As previously described, the software product 50 enables an Internet user to make a reservation at the merchant's place of business over the Internet. When such a reservation is made, the selected time-slot 332

in the spreadsheet **324** is automatically updated with the customer's name to reserve that time-slot. When an Internet user makes a reservation for a table on a particular day and at a selected time, the user information is written to records associated with the time-slot in the database **76** affiliated with the merchant. The Internet user's name thus appears in the time-slot **332** in the spreadsheet **324** for the day of the reservation. In addition, the software product **50** also allows the merchant to enter reservations into the spreadsheet **324** to accommodate customers making reservations in more traditional ways, such as by telephone or by walking into the establishment. For example, when a customer calls looking for a reservation, the merchant will navigate the various web pages of the software product to get to the web page **320** which displays the reservation spreadsheet **324** for the date the reservation is desired. Then once the customer has decided to accept a reservation at an available time-slot **332**, the merchant selects that desired time-slot **332**.

Referring to Figure 18, a web page **350** is shown. The web page **350** appears when one of the available time-slots **332** of the spreadsheet **324** is selected, for example when the merchant is making a reservation for a customer calling on the phone. The web page **350** includes a window **352** which includes data entry fields for entering a party's name (**354**), the size of the party (**356**), whether a smoking or a non-smoking table is requested (**358**), a field for entering special dietary requests (**360**) and whether the party is celebrating a special occasion (**362**). The window **352** also includes a data entry field **363** which is used to block out the corresponding time-slot **332**. A merchant would block out a time-slot **332** to prevent it from being reserved, thus providing the merchant with flexibility to assign the table on an ad-hoc basis. Returning to our example, when the merchant inserts the above-defined customer information into fields **354** - **362**, the merchant is then required to select the "GO" icon **364** to make the reservation. When this occurs, the spreadsheet **324** of Figure 17 is automatically updated to indicate that the telephoning party has reserved the requested time-slot **332**. This is accomplished because the software product **50** writes the customer information captured in window **352** into the records in the merchant database **76** corresponding to the selected time-slot **332**. The software product **50** would be operated in a similar manner for a walk-in at the

merchant's establishment. The spreadsheet **324** thus has the ability to graphically display all the bookings for a particular day regardless if made by customers using the Internet, by telephone or walk-ins. In alternative embodiments, the window **352** can appear as a separate web page or can appear as a window overlapping a portion of the spreadsheet **324** of Figure 17.

The software product **50** also allows a merchant to update the software product **50** when a party with a reservation arrives at the restaurant. When this occurs, the merchant is required to find the Party's reservation, either visually on the spreadsheet **324** or using the data entry field **334** of Figure 17. Once the Party's time-slot **332** is found, it is selected by the merchant. This causes, as illustrated in Figure 19, a window **360** to appear. The window **360** includes a text fields **362a - 362e** where the Party's name, size, smoking or non-smoking preference, special request information, etc., is displayed. The window **360** also includes a data entry field **364** which allows the merchant to indicate if the Party has arrived. When the merchant submits that the Party has arrived, the window **360** disappears from the spreadsheet **324** and the corresponding time-slot **332** is automatically highlighted to indicate that the Party has arrived and is being seated. The window **360** also includes a field **366** which allows the merchant to change/cancel a reservation. Again in alternative embodiments, the window **360** can appear as a separate web page or as a window overlapping a portion of the spreadsheet **324** of Figure 17.

The software product **50** also allows a merchant to modify or cancel a reservation after it has been made. For example, if Mr. Spielberg called ahead of time and requested to change his reservation at the designated time, the merchant would visually search and find the time-slot **332** reserved in his name on the spreadsheet **324**. In the alternative, "Spielberg" could be entered into data entry field **334** to automatically locate the time-slot **332** reserved by Mr. Spielberg. In either way, the merchant would then select the reserved time-slot **332** and cut and paste it to another available time-slot **332** on the spreadsheet **324** for the same day or another day. The cut and paste operation causes the user information stored in the original records in the database **76** to be cut and moved to a

second set of records corresponding to the second time-slot **332**. In an alternative embodiment, the merchant can select the time-slot **332** causing the window **360** of Figure 19 to appear. By selecting the “Yes” icon associated with the cancel/change data entry field **366**, the reservation record in the database **76** is removed, canceling the reservation.

- 5 If the Party wishes another time, the reservation can be made by using the same steps as provided above.

As previously noted, web page **300** of Figure 15 includes the hot link **304** for Direct Marketing, the hot link **305** to revise the web site and the hot link **306** to create
10 table reservation templates. Each of these features are now described below.

Referring to Figure 20, a web page **400** for performing direct marketing by the merchant is illustrated. The web page **400** appears after the merchant selects the hot link **304**, which causes the mail module **58** of the software product **50** to be accessed. The
15 web page **400** includes a text entry field **402** for entering messages and a “GO” icon **404** for emailing the message(s) entered into the text entry field **402** to Internet users stored in the database **76** affiliated with the merchant. The web page **400** thus provides the merchant with a highly effective, easy to use, electronic tool to communicate with their customer base. For example, the merchant can use this tool to inform customers of
20 promotions, specials, upcoming events, open reservations, electronic newsletters, etc. This feature can therefore significantly help the merchant’s business by creating a sense of community among customers, and by using promotions to entice customers to increase traffic at the merchant’s place of business. The mail module **58** can also be programmed to automatically send out emails to Internet users. For example, the mail module **58** can
25 be programmed to send out a reminder of a reservation to an Internet user a predetermined time prior to a booked reservation. The mail module **58** could also be programmed to automatically send out an email the day after a reservation asking for feedback on their dining experience. The email, in one embodiment, could include some type of a promotional reward or electronic coupon to encourage a reply email and to
30 entice the user to return to the establishment. In yet another embodiment of the

invention, an individual merchant **74** could pay or otherwise barter for access to other Internet users that are part of the super-community **72**.

Referring to Figure 21, a web page **410** for revising the merchant's web site is shown. The web page **410** appears after the merchant selects the hot link **305** of the web page **300** as illustrated in Figure 15, which causes a portion of the web helper module **52** of the software product **50** to be accessed. The web page **410** includes a pull down menu **412** which allows the merchant to select which portion of the web site of Figure 8 is to be revised. Again using a restaurant example, the entries for the pull down menu **412** may include specials, the food menu, the wine list, reviews, etc. Once the merchant has selected the portion of the web site to be revised, the "GO" icon **414** is selected to make the actual changes.

Referring to Figure 22, a web page **420** for revising the merchant's food menu is shown. The web page **420** appears when the merchant selects the "food menu" using the pull down menu **412** of web page **410** of Figure 21. The web page **420** includes a text field **422** which lists each item on the food menu. Each item is identified by an item number **424**, a description of the item **428**, and an item price **430**. The web page **420** also includes data entry fields for entering an item number (field **432**), a dish name **433**, a description of the item (field **434**) and the price of the item (field **436**). To revise an existing item listed in the text field **422**, the merchant is simply required to type the item number **424** into the field **432**, the name of the new dish into field **433**, the new description of the item into field **434**, and the price into field **436**. When the "GO" icon **438** is selected on the merchant's computer, the item number **424** in the text field **422** will automatically be updated with the new dish name, description and price. New items are added in an identical manner. To add a new item in the example shown in Figure 22, the merchant would be required to enter an item number "6" into the field **432** and then enter the dish name, description and price. This feature allows a merchant to quickly, inexpensively and easily revise and maintain an up-to-date web site. The merchant can therefore keep the Internet using public informed on the latest happenings at her place of

business. Thus in embodiments of this invention where the server 12 hosts the merchant's web site, a merchant can update his or her web site from a remote location over the Internet 18.

Super-Community Embodiments

As previously discussed, the software product 50 of the present invention enables the creation of web "super-communities" made up of the aggregate of the individual merchants in a given vertical market. A description of how the super-community concept is implemented in two exemplary embodiments is described below.

Referring to Figure 23, a block diagram illustrating the implementation of a web super-community is shown. The super-community 500 includes a server 12 executing the software product 50, a plurality of merchants 74a - 74n each operating a computer 16a - 16n respectively, and coupled to the server 12 via the Internet 18. Also included in the super-community 500 are the Internet users designated by reference number 502. A master copy of the databases 76a - 76n of customers and reservation information for each merchant 74a - 74n is stored on the server 12. In the aggregate, the master copies of the merchant databases 76 form the "super-community" of Internet users 502 and merchants 76a - 76n. A cache copy 504a - 504n of the reservation information pertinent to each merchant 74a - 74n is locally stored on the merchant's computer 16a - 16n respectively. In this embodiment, the server 12 is used to execute the software product 50 and to host the web sites 170 (Figure 8) of each of the merchants 76a - 76n in the super-community 500. As previously noted, these web sites 170 along with the host web site 90 (Figure 5) are accessible over the Internet 18 by both users 502 and the individual merchants 76a - 76n.

A user 502 seeking to book a reservation at one of the merchants 76 can do so as described in relation to Figures 6-12 above. If the user 502 is undecided as to where to make a reservation, the search windows 112 and 130 (Figure 6A) empowers the user 502 to find and peruse the web sites of various merchants 76 affiliated with the super-

community **500**. Alternatively, the user can go directly to the web site of an affiliated merchant **76** if they know the URL for that site. In either case, the user's information captured in data entry window **232** (Figure 11) and their reservation booking information is captured and stored in the master database **76** affiliated with the merchant **74** on the server **12**. This information is then automatically written via the Internet **18** to the cache copy **504** on the computer **16** of the merchant **76**. The merchant therefore has a local "back-up" copy of all the reservation and user information pertinent to the merchant. This information could be beneficial in the event the Internet **18** was down or the server **12** was otherwise inaccessible by the merchant **76**. In an alternative embodiment, the user may not receive an automatic confirmation of a reservation until the merchant's computer **16** has sent an acknowledgement that the booking has been written to the cache copy **504** of the merchant. This would prevent an Internet user **502** from believing that a reservation has been booked with the merchant when in fact it has not, typically due to a technical difficulty such as the merchant's computer **16** or the Internet **18** being down.

Similarly, a merchant **76** can access their Maintenance Center (hot link **132** of Figure 6A) and access and manage their bookings, perform direct marketing, service their web sites, etc. as described with respect to Figures 15-22. The merchant **76**, just like a web user **502**, can also make a booking for either a party seeking to make a reservation via the telephone or as a walk-in, using their computer **16** to access their database **76** located on the server **12** over the Internet. The only difference being is that in the case of the merchant **76**, the booking is made through the Maintenance Center as described above. Again in various embodiments of the invention, reservations made by the merchant for either walk-in or telephone-in customers, can be written into the cache copy **504** of the computer **16** residing at the merchant's place of business.

Referring to Figure 24, a block diagram illustrating another implementation of a super-community is shown. The super-community **600** includes a server **12** and a plurality of computers **12**, each associated with a merchant **76** in the super-community **600** (for the sake of clarity, only one computer **12** is shown). In this embodiment, each

computer **12** at a merchant **76** location is an SQL server or a similar server capable of hosting a web site and maintaining and accessing a database. The computer **12** is used to host the merchant's web site (Figure 8) and maintain a master copy of the database **76** that contains the user information and reservation information for the merchant **76**. When a reservation is made, either via the Internet **18**, or by a walk-in or by a customer over the telephone, that customer and reservation information is stored in the master copy **76**. This same information is also sent over the Internet **18** to a slave copy of the database **602** maintained on the server **12**. Again in the aggregate, the slave copies **602a - 602n** of all the merchants **76a - 76n** make up the super-community **600**. In this embodiment, the server **12** would host the super-community web page (i.e. Figures 6A, 6B, 6C, 7 and 8) and the hot links **142** for each merchant's web site (Figure 7) would link the Internet user to the computer **12** of the merchant **76**.

Database Hierarchy

Referring to Figure 25, a block diagram illustrating the hierarchy of the database **13** used in the software product of the present invention is shown. The database **13** (Figure 4) is a relational database which includes a plurality of sub-databases **76a - 76n** for each merchant respectively. Each sub-database **76** includes records which contain a merchant ID, merchant name and address, and a pointer **704** which points to another sub-database **706** specific to the merchant identified in the sub-database **76**. The sub-database **706** includes a plurality of pointers, each pointing to all the components of the web site for the merchant. In the embodiment shown in Figure 25, the sub-database **706** includes pointers to the merchants menu, wine list, specials etc. and pointer **708** which points to another sub-database **710** which contains the booking information for the merchant. The sub-database **710** includes a plurality of records **712a - 712n**, each for a specific day. The records **712** include a database structure **714** that a plurality of time-slots. Each time-slot, for the restaurant example, is identified by a table number and a time increment. For other vertical markets, the appropriate descriptors would be used to identify each time-slot. The database structure **714** also contains a pointer for each time-slot. In the event a given slot is booked, the pointer points to a record **716** that contains the name and ID of

the person that has reserved the slot. The record **716** also includes a pointer that points to a record containing all the membership information of the person booking the time-slot in a customer database **718**. The customer database is therefore a large database that contains the aggregate of the individual records, including the membership information,
5 of each user-customer for all the merchants, thus defining a super-community of users.

Product Operation (Flowchart)

Referring to Figure 26, a flowchart illustrating the operation and sequence of the software product **50** of the present invention is shown. Initially the portal web site of Figure 5 is accessed (box **802**). The viewer, either an Internet user or a merchant, then
10 selects a vertical market (box **804**). Once a vertical market is selected, the web page of Figure 6A which is an example of a home page for a vertical market is displayed (box **806**). At decision diamond **810**, an Internet user can proceed with making a booking over the Internet or a merchant can access the Merchant Center by selecting the appropriate
15 links provided on the web page of Figure 6A.

In the case of an Internet user, a search query is typically submitted to identify one or more merchants in the vertical community (box **812**). The user can then view the web sites for the merchants (box **814**) meeting the search criteria and make a booking request
20 (box **816**) at a selected merchant. The software product then displays to the user both available and not available time-slots during the time period defined by the user at the merchant's place of business (box **818**). The user is then able to book a selected time-slot (box **820**) which is automatically written in the merchant's database **76**. The software product **50** sends an email confirmation to the user after the booking has been made (box
25 **822**) and subsequent reminder emails (box **824**).

Merchants on the other hand are required to decide (decision diamond **830**) whether they would like to perform direct marketing (box **832**), update their web site (box **834**), or manage their bookings. In the event the management of the bookings is
30 selected (diamond **836**), the merchant must elect if the booking transaction involves a

change in a party's booking (box 838), the arrival of a party (box 840), or a booking for a walk-in or a telephone customer (box 842).

5

On-Line Auctions

The software product 50 of the present invention also provides merchants with the ability to create on-line auctions for time-slot inventory. Under certain business conditions where the demand for time-slots is very strong, the merchant may wish to sell
10 bookings to the highest bidder, rather than at the regular cost for the booking. For example, a hotel located near the stadium where a major sporting event is to occur, such as the Super Bowl, may wish to auction its room booking for the weekend of the big game. Given the high demand for conveniently located hotel rooms, there is a strong likelihood that the final bid for the room would be higher than the standard price for the
15 room.

Referring to Figure 27, an exemplary web page 900 used for holding an Internet auction for a time-slot. The page 900 includes a window 902 that provides a brief description of the available time-slot, a window 904 for the merchant to enter the opening
20 price, a window 906 for providing the date for the close of the bidding, a window 908 for providing the current highest bid, and a data entry field 910 in which registered users can enter bids when the "GO" icon 912 is selected. The text message 914 informs the Internet user that their bid will be binding if accepted. The web page 900 therefore allows Internet users to submit bids for the time-slot. Since the reservation will typically
25 go to the highest bidder, the merchant may generate more revenue than by offering the reservation at the standard rate on a first-come first-serve basis.

The software product of the present invention provides numerous opportunities for Internet users, merchants, and the host of the "super-communities". For Internet
30 users, the present invention provides selection, speed and immediacy in making bookings

at merchants affiliated with the super-community. It allows merchants to participate in the Internet revolution like never before, send direct marketing correspondence to customers, and automate their reservation booking process. And finally, the host of the super-community can enjoy numerous e-commerce benefits, such as selling advertising space, goods and other services to the members of the super-community. While the invention has been described in relationship to the embodiments shown in the accompanying figures, other alternatives, embodiments and modifications will be apparent to those skilled in the art. It is intended that the specification be only exemplary, and that the true scope and spirit of the invention be indicated by the following claims.

We Claim:

1. A software product configured to create an on-line reservation system comprising:

5 a web portal module configured to create a portal web site;

a search module configured to locate a selected merchant in response to a search request from an Internet user to locate the selected merchant among a plurality of merchants affiliated with the portal web site;

10

a time-slot display module configured to display time-slots at the selected merchant's place of business;

15 a booking module configured to allow the Internet user to book one of the displayed available time-slots; and

a confirmation module configured to provide the Internet user a real-time confirmation of the booked time-slot.

20 2. The software product of claim 1, wherein the web portal module and the search module are configured to be executed on a host computer.

3. The software product of claim 2, further comprising a database module configured to store booking information associated with the booked time-slot on the host computer.

25

4. The software product of claim 3, wherein the database module is further configured to store user demographic information associated with the Internet user on the host computer.

5. The software product of claim 4, wherein the software product is further configured to store a second copy of the booking information and the user demographic information on a second computer affiliated with the selected merchant.

5 6. The software product of claim 1, further comprising a host database configured to store the aggregate of the booking and Internet user information for substantially all of the plurality of merchants affiliated with the portal web site.

7. The software product of claim 6, wherein the software product further comprises a
10 merchant database, which is a subset of the host database, the merchant database configured to store substantially all of the information associated with the booked time-slots at the selected merchant's place of business.

8. The software product of claim 1, wherein the search module is configured to
15 locate the selected merchant using at least one of the following search criteria: name of merchant; city of merchant; state of merchant; market of merchant; and/or type of services offered by merchant.

9. The software product of claim 1, further comprising a cancellation module
20 configured to permit the Internet user to cancel the booked time-slot.

10. The software product of claim 9, wherein the cancellation module further
comprises a booking search module to locate the previously booked time-slot for
cancellation by the Internet user.

25 11. The software product of claim 1, wherein the portal web site is aligned with at least one of the following vertical markets: food service market; golf market; hotel and inn market; salon market; spa market; cinema market; performing arts market; medical market; and/or sports market.

30

12. The software product of claim 1, wherein the time-slot display module further comprises a time-slot search module configured to search and display the available and not available time-slots at the selected merchant's place of business for a selected time period as defined by the Internet user.

5

13. The software product of claim 1, further comprising a database module having a plurality of records, each one of the plurality of records corresponding to substantially all the time-slots that can be displayed by the time-slot display module, the time-slot display module and the booking module further configured to interface with the database module so that the booking module reserves a selected available time-slot by writing booking information to the record in the database module corresponding to the selected available time-slot.

10

14. The software product of claim 13, wherein the booking module further comprises a data entry module configured to enable the Internet user to write user information to the record corresponding to the selected available time-slot.

15

15. The software product of claim 14, wherein the user information includes at least one of the following: user name; user's email address; user's home address; user's phone number; user's occupation; user's income; and user's interests.

20

16. The software product of claim 1, wherein the confirmation module further comprises an electronic message generation module configured to automatically send an electronic message confirmation to the Internet user after one of the available time-slots has been booked.

25

17. The software product of claim 16, wherein the electronic message generation module is further configured to send a reminder electronic message reminding the Internet user of the booked time-slot at a predetermined time prior to the booked time-slot.

30

18. The software product of claim 1, wherein the software product is further configured to interface with a merchant web site module configured to provide an Internet web page affiliated with the selected merchant, the merchant web site module being
5 linked between the search module and the time-slot display module.

19. The software product of claim 18, wherein the web portal module, the search module, and the merchant web site module are all configured to be hosted on a host computer.

20. The software product of claim 18, wherein the web portal module and the search module are configured to be executed on a host computer and the merchant web site module is configured to be executed on a second computer affiliated with the selected merchant.

21. The software product of claim 1, further comprising a security module configured to prevent the unauthorized access of booking and Internet user information.

22. A method for providing an on-line reservation system, the method comprising the
20 steps of:

associating a plurality of merchants with a portal web site;

providing a search module configured to locate a selected merchant among the
25 plurality of merchants affiliated with the portal web site in response to a request received by an Internet user;

making time-slots available at the selected merchant's place of business available
for display over the Internet for viewing by the Internet user;

accepting from the Internet user a booking of one of the displayed available time-slots; and

providing to the Internet user over the Internet a real-time confirmation of the booked time-slot at the selected merchant's place of business.

23. The method of claim 22, further comprising the steps of:

maintaining an aggregate database having a plurality of records, each one of the plurality of records corresponding to the aggregate of the time-slots for substantially all of the merchants affiliated with the portal web site; and

for each of the affiliated merchants, maintaining a merchant database which is a subset of the aggregate database, the merchant database for a selected merchant containing the subset of records in the aggregate database corresponding to the selected merchant; and

writing booking information inputted by the Internet user to the selected record in the merchant database corresponding to the booked time-slot.

24. The method of claim 23, further comprising the step of maintaining a cache copy of the merchant database including the booking information for the booked time-slots at a computer affiliated with the selected merchant.

25. The method of claim 23, wherein the step of providing the Internet user a real-time confirmation further comprises the step of generating an email confirmation message to the Internet user immediately after the booked time-slot at the selected merchant's place of business has been written to a database record corresponding to the booked time-slot.

26. The method of claim 23, further comprising the step of generating a reminder email at a predetermined time prior to the booked time-slot to remind the Internet user of the booked time-slot.

5

27. A system configured to provide an on-line reservation system, the system comprising:

10 a computer, coupled to the Internet, and configured to maintain a portal web site affiliating a plurality of merchants, wherein the computer is configured to execute computer code having the following modules:

15 a search module configured to locate a selected merchant among the plurality of merchants with the portal web site in response to a search request from an Internet user;

a data retrieval module to transfer time-slots available at the selected merchants place of business to the Internet user for display over the Internet;

20 a booking module to accept from the Internet user a booking of one of the displayed available time-slots; and

25 a confirmation module to provide the Internet user over the Internet a real-time confirmation of the booked time-slot at the selected merchant's place of business.

28. The system of claim 27, wherein the computer further comprises a database having a plurality sub-databases each corresponding to one of the plurality of affiliated merchants, each of the sub-databases having a plurality of records corresponding to the
30 time-slots of the corresponding merchant.

29. The system of claim 28, wherein the computer further comprises a security element which is configured to allow the affiliated merchants to access only their corresponding sub-database in the database over the Internet.

5

30. The system of claim 28, further comprising second computers associated with each of the affiliated merchants and respectively coupled to the Internet, the first computer and the second computers being configured to allow a cache copy of the sub-databases corresponding to each of the affiliated merchants to be stored on the second computers associated with the merchants respectively.

10

31. The system of claim 27, wherein the confirmation module further comprises an email confirmation message to the Internet user immediately after the booked time-slot at the selected merchant's place of business has been written to a database record corresponding to the booked time-slot.

15

32. The system of claim 31, wherein the email module is further configured to generate a reminder email a predetermined time prior to the booked time-slot to remind the Internet user of the booked time-slot.

20

33. The software product of claim 1, further comprising a database module, the database module configured to maintain the booking information associated with substantially all booked time slots at the merchant's place of business, including the time-slots booked over the Internet and the time-slots not booked over the Internet.

25

34. The method of claim 22, further comprising the step of maintaining a database associated with the selected merchant, the maintaining step further including the steps of:

maintaining the bookings of the time-slots by Internet users using the Internet;

30 and

maintaining the bookings of the time-slots not made over the Internet.

35. The system of claim 27, further comprising a database module, the database
5 module configured to maintain the booking information associated with substantially all
booked time slots at the merchant's place of business, including the time-slots booked
over the Internet and the time-slots not booked over the Internet.

36. A software product configured to create an on-line reservation system comprising:

10 a web portal module configured to create a portal web site;

a search module configured to locate a selected merchant in response to a search
request from an Internet user to locate the selected merchant among a plurality of
15 merchants affiliated with the portal web site;

a time-slot display module configured to display time-slots at the selected
merchant's place of business;

20 a booking module configured to allow the Internet user to book one of the
displayed available time-slots;

a database module configured to maintain the booking information associated
with substantially all the booked time-slots at the merchant's place of business, including
25 the time-slots booked over the Internet and the time-slots not booked over the Internet;
and

a confirmation module configured to provide the Internet user a real-time
confirmation of the booked time-slot.

APPARATUS AND METHOD FOR AN INTERNET
BASED COMPUTER RESERVATION
BOOKING SYSTEM

5

Abstract

666240-4E020E60
The present invention is a software product that provides merchants that sell time-slot
inventories tools to capitalize on the Internet revolution. The present invention enables
the creation of web-sites for merchants with a built-in web-based reservation booking
10 system. This offers customers the on-line benefits of access, selection and immediacy in
making real-time reservation/appointments over the Internet. The software product also
simplifies the merchant's booking process by providing a central web-based
reservation/appointment management system that can be used for all bookings, regardless
if made by telephone, by a walk-in customer, or by a customer via the Internet. The
15 software product also provides the merchant with a powerful direct marketing tool. As a
merchant uses the software product, user-customer profiles and demographics are
captured in the database module, thus creating (in Web jargon) a "community" of
customers specific to the merchant. The merchant is thus empowered, using the mail
module, to directly communicate with its customer base, using customer profiles and
20 demographics to create a highly targeted and effective marketing and promotional ad
campaign. The software product also allows the merchant to auction off time-slot
inventory over the Internet. Lastly, the software product enables the creation of Web
"super-communities" consisting of the aggregate of all the individual merchant's
customer-communities using the software product.

25

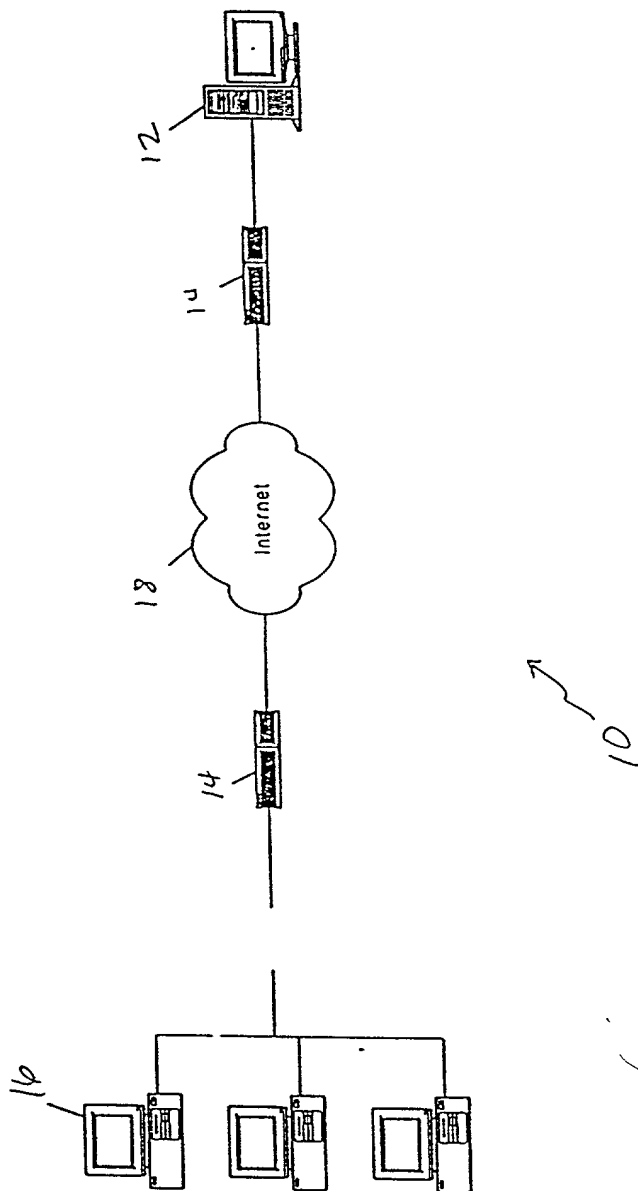


Fig. 1

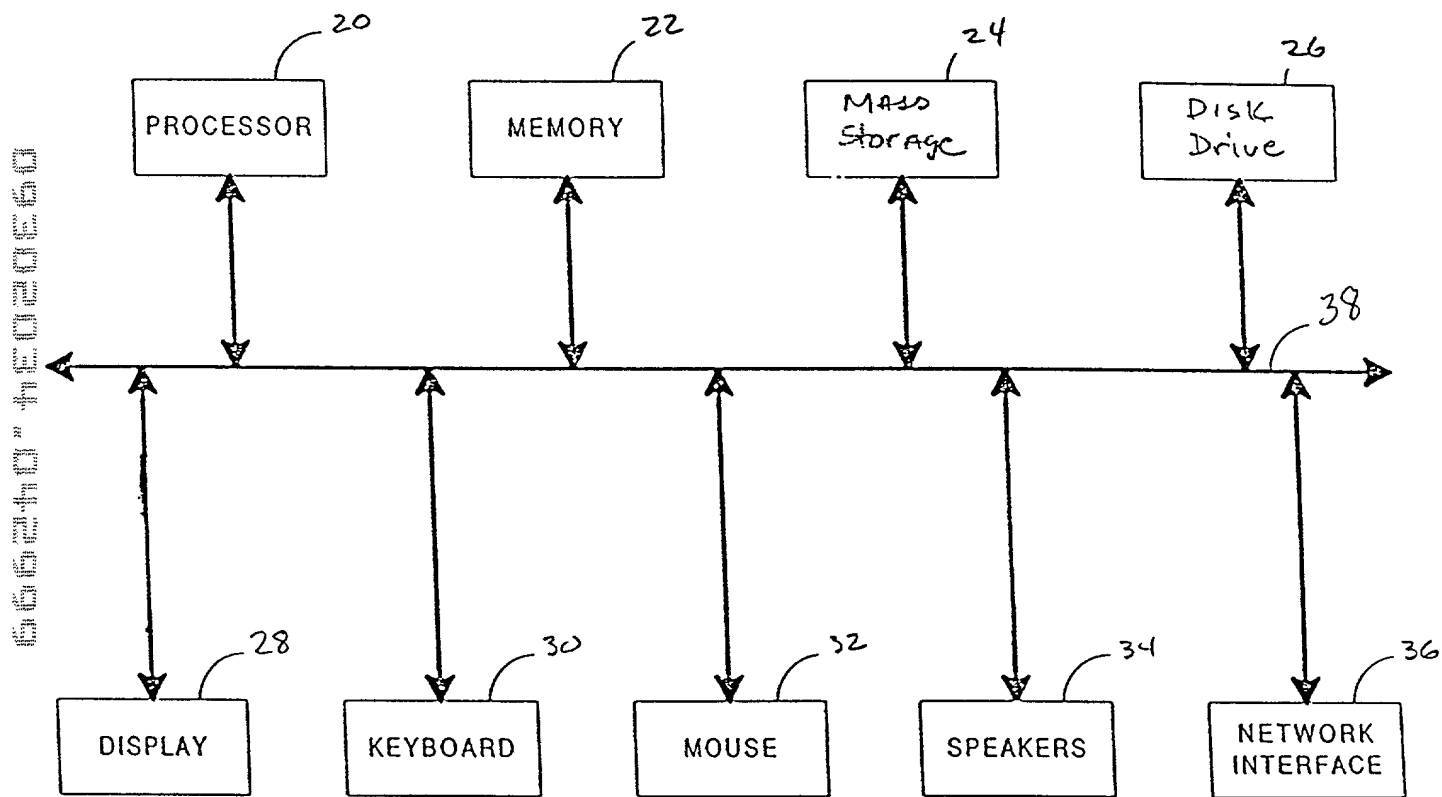


FIG. 2

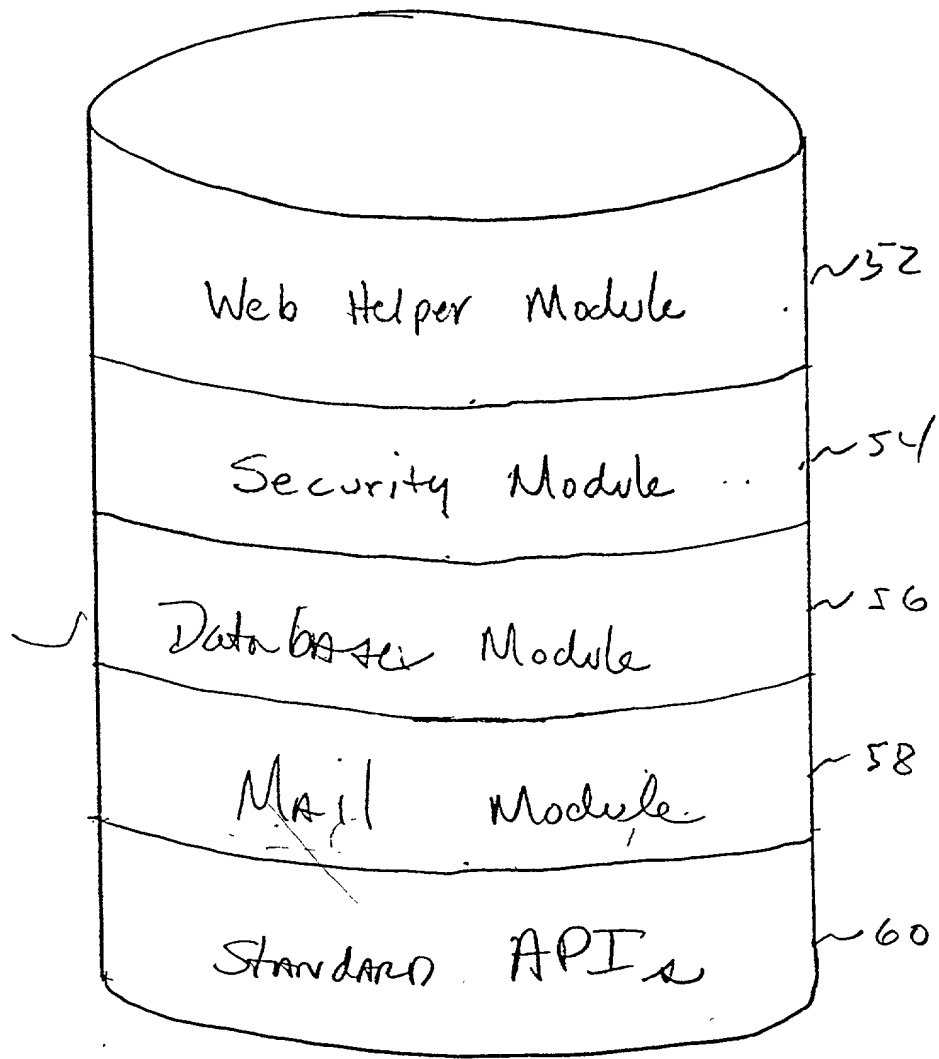


Figure 3

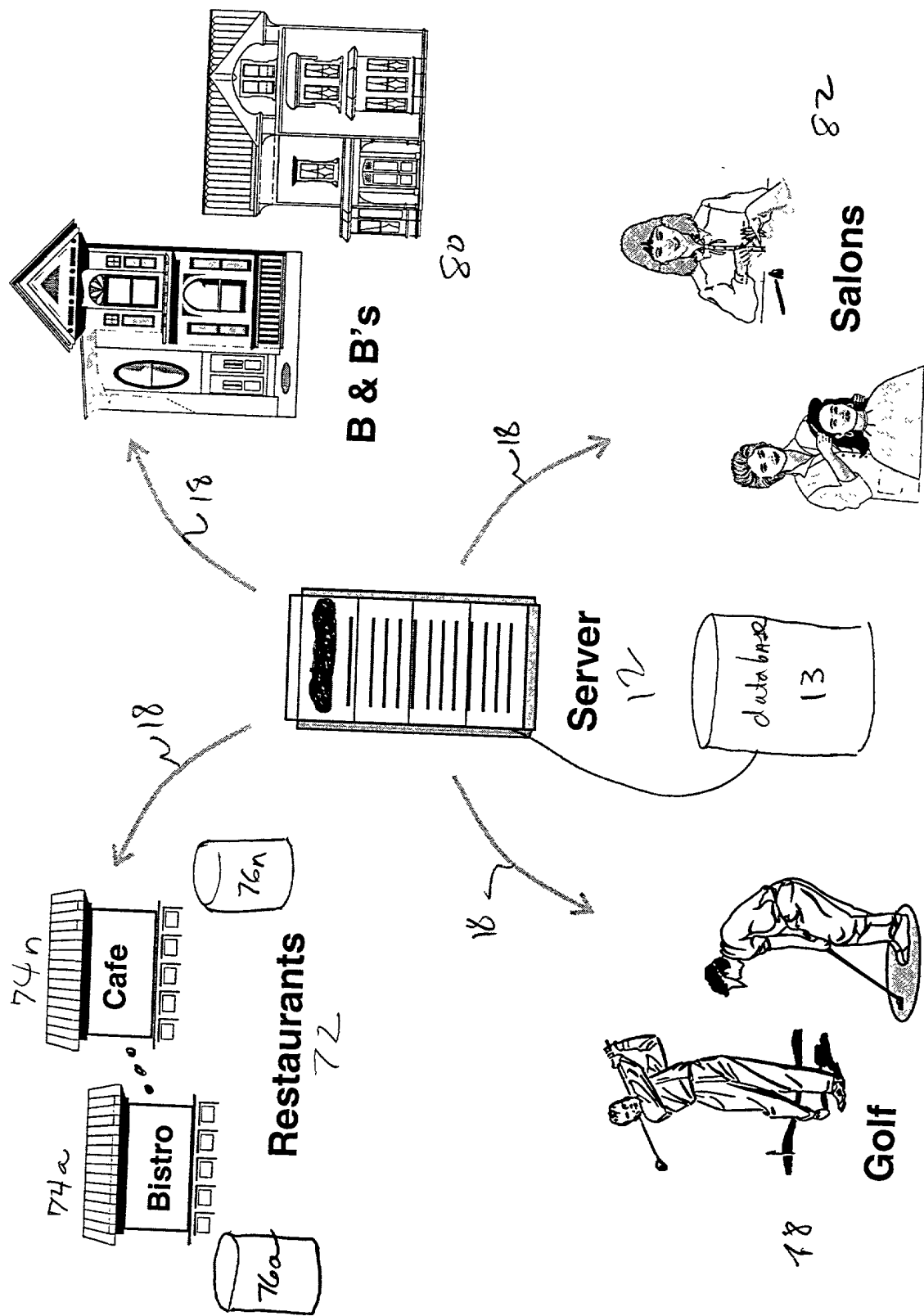


Figure 4

**B**[eCuisine](#)

~92

[eBanquet](#)[eB&B](#)

~96

[eGolf](#)

~94

[Free Membership](#)

~98

[About eShock](#)

~100

[Contact us](#)

~102

Welcome to *eShock*

The Internet reservation booking site!

Search our list of affiliated proprietors in the restaurant,
golf, and bed & breakfast industries and enjoy the convenience
of booking a reservation over the Internet!

90 ↗

Figure 5

**B**[eCuisine](#)[eBanquet](#)[eB&B](#)[eGolf](#)[Free Membership](#)[About eShock](#)[Contact us](#)

New Member sign up here...

Join us free! Please take a moment to fill out this simple form and become a eShock member.

Pick a login name	<input type="text"/>
Choose a Password	<input type="text"/> (mini characters)
Confirm Password	<input type="text"/>
First name	<input type="text"/>
Last name	<input type="text"/>
Street address	<input type="text"/>
City	<input type="text"/>
State	Select State <input type="text"/>
Zip Code	<input type="text"/>
Phone	<input type="text"/>
eMail address	<input type="text"/>
Do you want to receive emails from eShock on restaurant's promotional?	<input checked="" type="radio"/> Yes <input type="radio"/> No



Figure 5B



B

[eCuisine](#)
[eBanquet](#)
[eB&B](#)
[eGolf](#)
[Free Membership](#)
[About eShock](#)
[Contact us](#)

eCuisine is eShock's on-line restaurant community reservation booking service. Surf the web sites of dozens of eShock affiliated restaurants in your area. Once you have made a choice, use the eShock system to book a reservation!

Restaurant Search

Restaurant Name	<input type="text" value="114"/>
City	<input type="text" value="116"/>
State	Select State <input type="text" value="118"/> <input type="checkbox"/> ~124
Type of cuisine	Select Cuisine <input checked="" type="checkbox"/> ~124



[Restaurant Sign Up - become a member of the eShock's eCuisine network](#)

[Recommend restaurant to join the eCuisine network](#)

[Restaurant Maintenance Center](#)



[FAQs](#)

Figure 6A

110

City	<input type="text" value="132"/>	<input type="text" value="124"/>
State	<input type="text" value="133"/>	<input type="text" value="124"/>
Date	<input type="text" value="134"/>	<input type="text" value="124"/>
Type of Cuisine	<input type="text" value="135"/>	<input type="text" value="124"/>
Time	From <input type="text" value="136a"/>	To <input type="text" value="136b"/>
		<input type="text" value="137"/>

Join eCuisine and have your reservation available online...

Restaurant Name	<input type="text"/>
Restaruant owner's Name	<input type="text"/>
Street address	<input type="text"/>
City	<input type="text"/>
State	Select State 
Zip Code	<input type="text"/>
Phone	<input type="text"/>
Fax	<input type="text"/>
eMail address	<input type="text"/>
Type of cuisine	Select Cuisine 
Please pick a User Name	<input type="text"/>
Please enter your password	<input type="text"/>
Do you have banquet services as well?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Do you have your own restaruant web site?	<input checked="" type="radio"/> Yes <input type="radio"/> No



As a restaurateur, how can you benefit from the Internet revolution? Of course it would. Check out all the benifits of joining the eShock community:

- A worry-free custom web site filled with information specific to your establishment, like menus, wine list, reviews etc., all created and maintained for you by eShock.
- An online based reservation booking system. Eliminate your antiquated pencil and paper reservation tracking system.
- Direct customer marketing over the Internet. Customers are using the Internet more and more for convenience, speed and immediacy. Be a leader in the Internet recolution. Join eShock's eCuisine community today and enjoy the benefits of eCommerce!
- Reservation booking convenience for your customers
- Customer

Figure 6B

**B**[eCuisine](#)[eBanquet](#)[eB&B](#)[eGolf](#)[Free Membership](#)[About eShock](#)[Contact us](#)

Recommend a restaurant

Make sure your favorite restaurant knows you are looking for them at eShock. Just fill out the brief form below and we will follow up to invite them to become a member of the eCuisine community.

Restaurant Name	<input type="text"/>
Restaurant owner's name	<input type="text"/>
Address	<input type="text"/>
City	<input type="text"/>
State	<input type="text" value="Select State"/>
Zip Code	<input type="text"/>
Phone	<input type="text"/>
Type of cuisine	<input type="text" value="Select Cuisine"/>
Reasons I like this restaurant	<input type="text"/>
Your Name	<input type="text"/> Thank your recommendation!
Your eMail	<input type="text"/>



Figure 6C



B

[eCuisine](#)
[eBanquet](#)
[eB&B](#)
[eGolf](#)
[Free Membership](#)
[About eShack](#)
[Contact us](#)

Search result

Restaurant	City	Cuisine	Zagat's Rating	Price	Diners' Co
Grandview Restaurant	Burlingame	Chinese	***	\$\$\$	Message 1-
Hong Kong Flower Lounge	SF	Chinese	***	\$\$\$	Message 1-
Try Me	San Jose	Chinese	***	\$\$\$	Message 1-
Try Me	San Jose	Chinese	***	\$\$\$	Message 1-
Try Me	San Jose	Chinese	***	\$\$\$	Message 1-
Try Me	San Jose	Chinese	***	\$\$\$	Message 1-
Try Me	San Jose	Chinese	***	\$\$\$	Message 1-
Try Me	San Jose	Chinese	***	\$\$\$	Message 1-
Try Me	San Jose	Chinese	***	\$\$\$	Message 1-

[New Restaurant Search](#)

140 ↗

Figure 7

B



Menu	~172
Specials	~173
Wine List	~174
Photos	~175
Reviews	~176
Table Reservation	~177
Table Cancellation	~178



170

Figure 8



B

Menu

Specials

Wine List

Photos

Reviews

Table Reservation

Table Cancellation

Reservation for Grandview restaurant

Please provide the following information so that we can check real-time table availability for you.

Date you wish to book your reservation	4/23/99 <input checked="" type="checkbox"/> ~124 192
How many people in your party?	4 <input checked="" type="checkbox"/> ~124 194
Smoking?	<input checked="" type="radio"/> No <input type="radio"/> Yes 193a
Special Dietary Requests?	193b
Special Occasion?	<input type="radio"/> No <input checked="" type="radio"/> Yes, please describe: 193c



~195

190 ↗

Figure 9

Cancel a Reservation

Party Name

Date of Reservation ▾

email address

User ID

Password

197

GO ~198

196

Figure 9B

666240"4600666



B

Menu

Specials

Wine List

Photos

Reviews

Table Reservation

Table Cancellation

You have selected a table for 4 on 4/23/99. Here are the times a reservation is available:

~206 ~208 ~204

Time	Availability
Lunch	
11:00	
11:30	
12:00	
12:30	
1:00	Available
Dinner	
5:00	Available
5:30	Available
6:00	Available
6:30	Available
7:00	Available
7:30	Available
8:00	Available
8:30	Available
9:00	Available

Select a starting time for your reservation (by clicking on the closest 1/2 hour increment slot)

200 ↗

Figure 10

666240"res000000

A table for 4 on 4/25/99 is available at 6.30 PM. Do you want to confirm your reservation now? ~ 222

For eShock members, confirm your reservation now by signing in

Member ID	226
Password	228

~ 224



~ 230

If you are not yet an eShock member yet, you need to join to book your reservation. What are you waiting for, it's free!

Membership Sign-up

Select a login name	
Choose a Password	(minimum 4 characters)
Confirm Password	
First name	
Last name	
Street address	
City	
State	Select State
Zip Code	
Phone	
eMail address	
Do you want to receive emails from eShock on restaurant's promotional?	<input checked="" type="radio"/> Yes <input type="radio"/> No 234a ~ 234b

~ 232

220

Figure 11



~ 236

**B**[Menu](#)[Specials](#)[Wine List](#)[Photos](#)[Reviews](#)[Table Reservation](#)[Table Cancellation](#)

To confirm your table reservation for 4 on 4/23/99 at 6:30 PM, please enter your credit card number, a \$20 no show if you do you show up and \$1 eShock reservation charge will apply to your card.

Credit card number	<input type="text" value="242"/>
Credit card Type	VISA <input type="text" value="244"/> <input type="text" value="124"/>
Expiration date	Jan <input type="text" value="1999"/> <input type="text" value="124"/>

252

248



~250

240

Figure 12

**B**[Menu](#)[Specials](#)[Wine List](#)[Photos](#)[Reviews](#)[Table Reservation](#)[Table Cancellation](#)

Your table reservation booking for 4 on 4/23/99 at 6:30 PM, is confirmed. Do you want to make another reservation at Grandview? or perform back to eShock homepage?

262

260

Figure 13

666240" 4E020E60

**B**[eCuisine](#)[eBanquet](#)[eB&B](#)[eGolf](#)[Free Membership](#)[About eShock](#)[Contact us](#)

Restaurant Center

If you're not a participating restaurant in the eCuisine community, sign up now!

↖ 281

If you are a participating restaurant, log-in now:

User Name	<input type="text" value="284"/>
Password	<input type="text" value="286"/>

~ 282



~ 288

↗ 280

Figure 14



B

Manage Reservation

Direct Marketing

Revise Web Site

Create Table
Reservation Templates

Logout

Welcome to the Restaurant Center! This area allows you, the restaurateur, to take advantage of the Internet like never before by:

- Managing all your reservations (via walk-in, phone or Internet) with an automated record-keeping system.
- Sending direct marketing email messages to your customer database, thus reducing your excess inventory of tables, and
- Revising and updating your web-site to attract more customers to your establishment.

↑
301

↗
300

Figure 15



B

[Manage Reservation](#)
[Direct Marketing](#)
[Revise Web Site](#)
[Create Table
Reservation Templates](#)
[Logout](#)

Restaurant Center - Manage Reservations

Table reservation chart

Date:	4/23/99 <input checked="" type="checkbox"/>	~ 124	~ 311
Party size:	ALL <input checked="" type="checkbox"/>	~ 124	312
			313



Customer search

Date:	4/23/99 <input checked="" type="checkbox"/>
Last name:	316(a)
First name:	316(b)
Phone no.:	316(c)
email address:	316(d)



310

Figure 16



B

Name Search 334

GO ~ 336

New reservation

Change reservation

Block out tables

View another date

Change party size

Help

Exit

Restaurant Center - Manage Reservations

This is the reservation screen for all tables on 4/23/99. ~ 322

Table No.	1	2	3	5	6	7	8	9	10	~ 326
Table Size	4	4	8	8	12	12	12	2	2	~ 328
11:00 AM										~ 330a
11:15 AM										
11:30 AM										
11:45 AM								332		
12:00 PM										
12:15 PM	Stephen Spielberg									
12:30 PM										
12:45 PM										
1:00 PM										
1:15 PM										
1:30 PM										
1:45 PM										
2:00 PM										
Table No.	1	2	3	5	6	7	8	9	10	
Table Size	4	4	8	8	12	12	12	2	2	
5:00 PM										
5:15 PM										
5:30 PM										
5:45 PM										
6:00 PM										
6:15 PM										
6:30 PM										
6:45 PM										
7:00 PM										
7:15 PM										
7:30 PM										
7:45 PM										
8:00 PM										
8:15 PM										
8:30 PM										
8:45 PM										
9:00 PM										
9:15 PM										~ 330i

Figure 17

320

~ 352

Block OUT TABLE ☒ No ☐ Yes ~ 332

Party Name

Party Size

Smoking ☒ No ☐ Yes ← 358

Special Dietary Requests

Special Occasion

~ 364

350

Figure 18

~ 360

Party Name	<input type="text" value="362a"/>
Party Size	<input type="text" value="362b"/>
Smoking	<input checked="" type="radio"/> No <input type="radio"/> Yes ~ 362c
Special Dietary Request	<input type="text" value="362d"/>
Special Occasion	<input type="text" value="362e"/>
Arrived	<input checked="" type="radio"/> Yes <input type="radio"/> No ~ 364
Cancel/Change	<input checked="" type="radio"/> No <input type="radio"/> Yes ~ 366
<input type="text" value="GO"/>	

Figure 19

B
Manage Reservation ~302

Direct Marketing ~304

Revise Web Site ~305

Create Table
Reservation Templates ~306

Log out ~308

Restaurant Center - Direct MarketingType in
your
direct
marketing
message
here:

The special tonight is Maine lobster

Receive a free dessert when you
make an on-line reservation

Your tenth dinner is free at Grandview

Please review your message above carefully before you press the GO button
below**Go** ~404

Figure 20

**B****Manage Reservation** ~302~304
Direct Marketing**Restaurant Center - Revise Website**~305
Revise Web Site

Please choose the area which you would like to revise:

**Create Table
Reservation Templates**Please choose the area which
you would like to update:**Specials** ☒

412

Log out

306

308



~414

410 ↗

Figure 21



B

[Manage Reservation](#)
[Direct Marketing](#)
[Revise Web Site](#)
[Create Table
Reservation Templates](#)
[Logout](#)

Restaurant Center - Revise Website

To update your menu, just enter the item number, the description and price in the space below. When finished, simply hit the return key and the entry will automatically be updated.

Item
 Dish Name
 Description
 Price



Go ~ 438

420

Done

Current Today Special Menu

424 — Item 1
 428 — Dish Name Fried Fish ~ 426
 Description
 Price 15.00 ~ 430

422 ~ Item 2
 Dish Name Braised Shanghai style whole cracked crab
 Description House specialty-delicious whole crab braised with ginger, green onions and b
 Price \$21.95

Item 3
 Dish Name Tsing-Tao beer Prawns
 Description Back by popular demand! Prawns lightly saut ed with the special Chinese bee
 zucchini and carrots
 Price \$12.95

Item 4
 Dish Name Fresh mussels with spicy black bean sauce
 Description Exquisite myssels seasoned with a special spicy black bean sauce.
 Price \$12.95

Item 5
 Dish Name Saut ed spicy Hunan smoked ham with leeks
 Unique Chinese smoked ham sauteed with a special hot and spicy chili and le



Figure 23

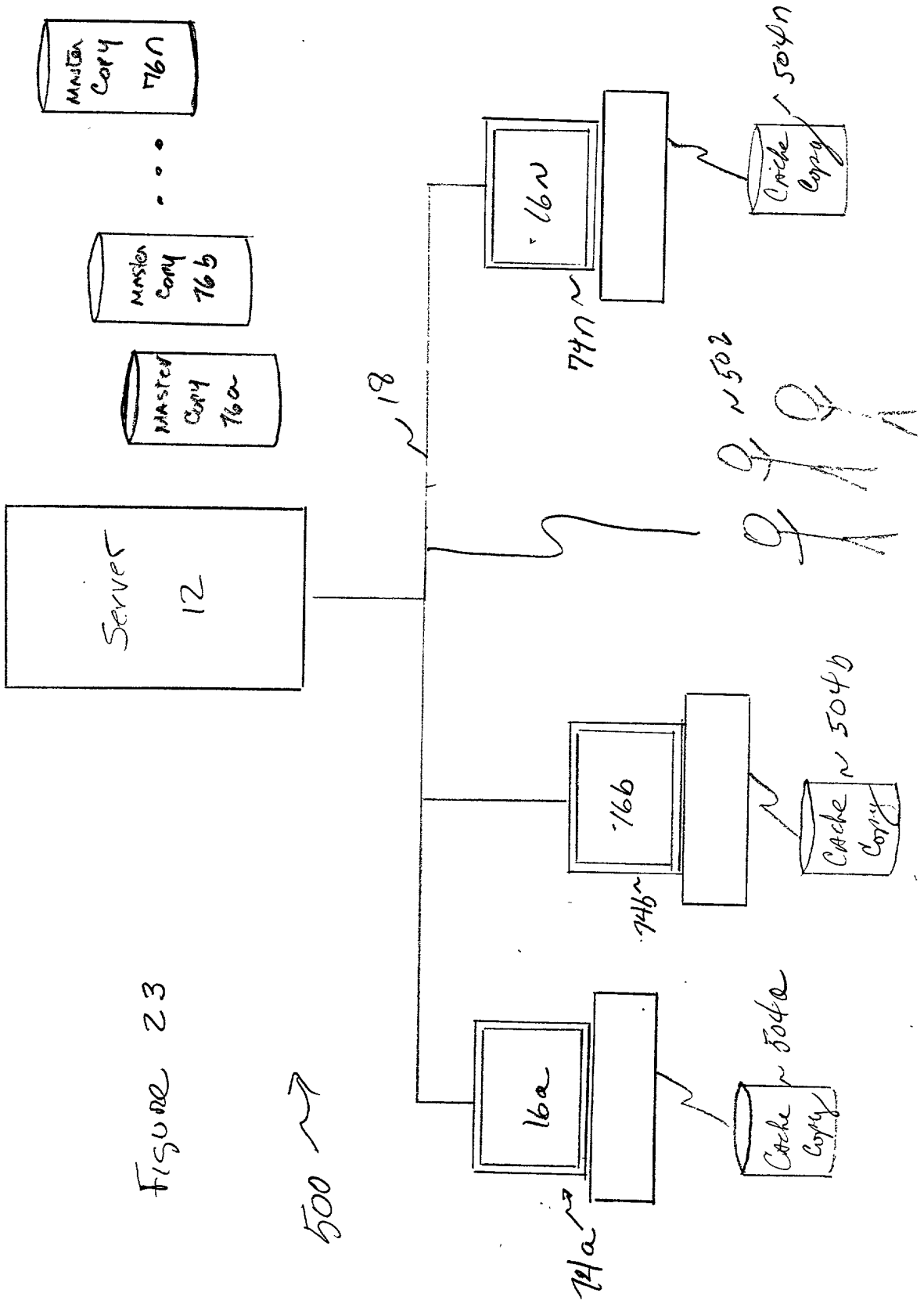




Figure 24

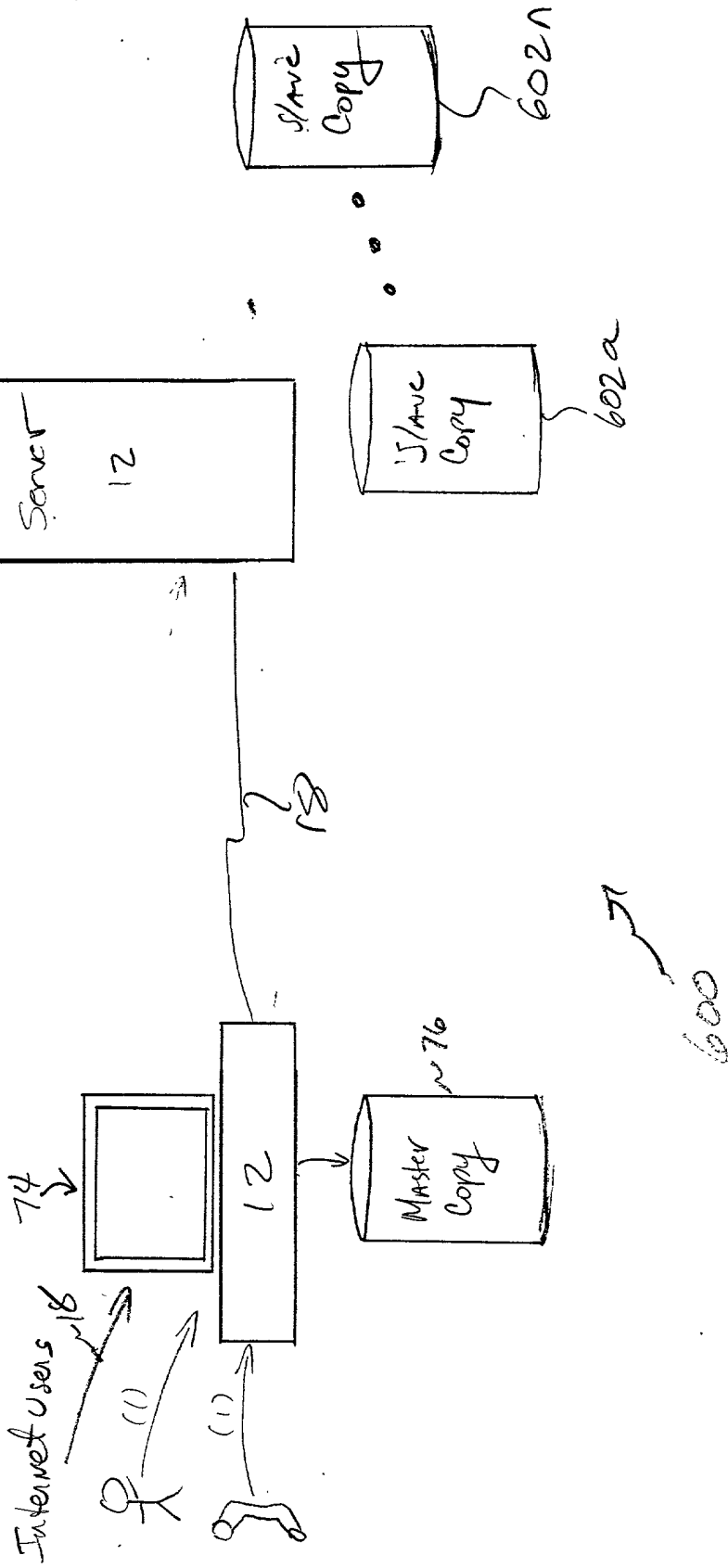
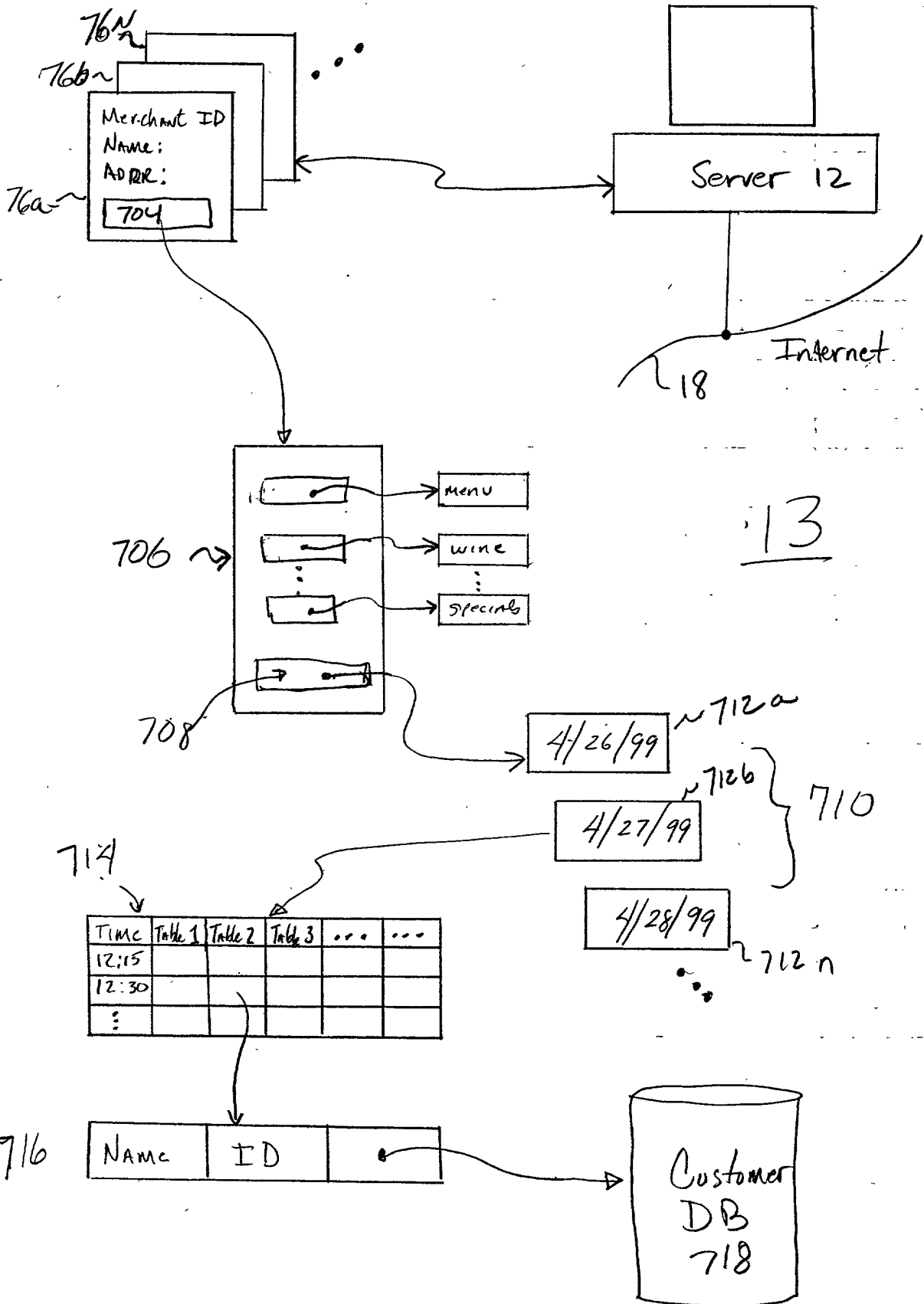


Figure 25



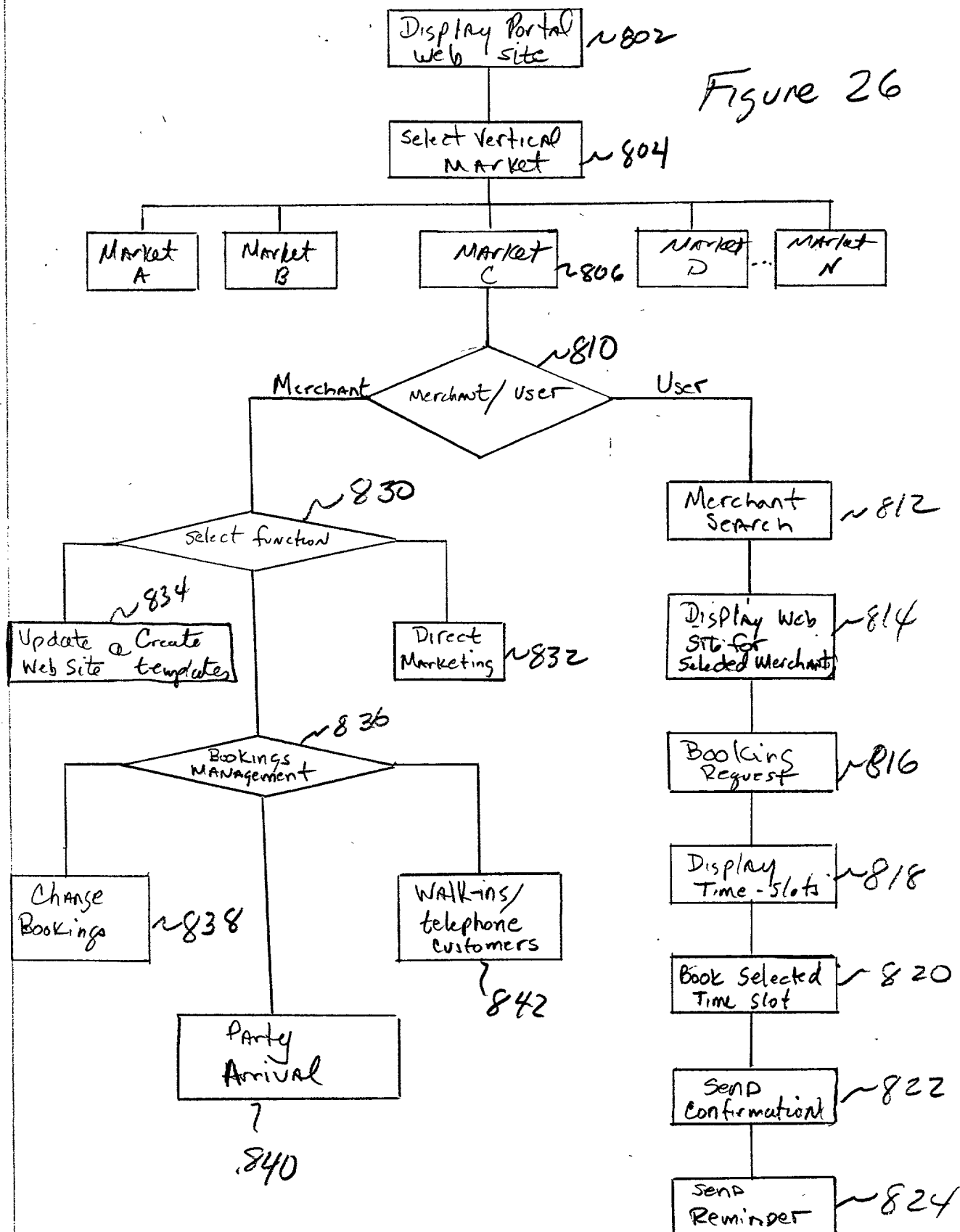


Figure 27

On-Line Action For Reservation

900

Description of
time slot to
be Auctioned

902
Date: JANUARY 31, 2000
A double room at the
Good Night Hotel centrally
located one block from the
stadium, the site for the
Year 2000 Superbowl

Opening Price :

\$ 200 / night

Date Bidding
Ends

Current Highest
Bid

Submit new
Bid Amount

GO

914
The highest bid on the date the bidding ends
is the accepted bid. All accepted bids are
binding.

**COMBINED DECLARATION AND POWER OF ATTORNEY
FOR PATENT APPLICATION**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below, next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**APPARATUS AND METHOD FOR AN INTERNET BASED
COMPUTER RESERVATION BOOKING SYSTEM**

the specification of which

 X is attached hereto

 was filed on _____ as
Application Serial No. _____ and
was amended on _____.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above. I do not know and do not believe that the same was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, and that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months prior to this application.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56(a).

I hereby claim foreign priority benefits under 35 U.S.C. 119(a) - (d) of any foreign application(s) for patent or inventor's certificate or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

<u>PRIOR FOREIGN APPLICATION(S)</u>			<u>PRIORITY CLAIMED</u>	
<u> </u> (Number)	<u> </u> (Country)	<u> </u> (D/M/Y Filed)	<u> </u> Yes	<u> </u> No
<u> </u> (Number)	<u> </u> (Country)	<u> </u> (D/M/Y Filed)	<u> </u> Yes	<u> </u> No

[illegible]

04/30/1998

(Filing Date)

(Filing Date)

(Filing Date)

As a named inventor, I hereby appoint James W. Rose, Reg. No. 34,239 as my attorney to prosecute the application identified above, and to transact all business in the Patent and Trademark Office connected therewith.

James W. Rose
923 Elm Street
San Carlos, CA 94070

First name of Sole/First Inventor:

James W. Rose

Inventor's Signature:

Date:

Residence:

923 Elm Street

Citizenship: U.S.A.

San Carlos, California 94070

Post Office Address:

Same as above

First name of Second Inventor:

Theodore C. Chen

Inventor's Signature:

Date:

Residence:

Citizenship: U.S.A.

Santa Clara, California 95050

Post Office Address:

Same as above

[illegible]

COMBINED DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below, next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

APPARATUS AND METHOD FOR AN INTERNET BASED COMPUTER RESERVATION BOOKING SYSTEM

the specification of which

X is attached hereto

_____ was filed on _____ as
Application Serial No. _____ and
was amended on _____.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above. I do not know and do not believe that the same was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, and that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months prior to this application.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56(a).

I hereby claim foreign priority benefits under 35 U.S.C. 119(a) - (d) of any foreign application(s) for patent or inventor's certificate or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

PRIOR FOREIGN APPLICATION(S)

PRIORITY CLAIMED

_____ (Number)	_____ (Country)	_____ (D/M/Y Filed)	_____ Yes	_____ No
_____ (Number)	_____ (Country)	_____ (D/M/Y Filed)	_____ Yes	_____ No

666240-4E020E60

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below:

60/083,651

(Application Serial No.)

04/30/1998

(Filing Date)

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(Application Serial No.)

(Filing Date)

(Status - patented,
pending, abandoned)

(Application Serial No.)

(Filing Date)

(Status - patented,
pending, abandoned)

As a named inventor, I hereby appoint James W. Rose, Reg. No. 34,239 as my attorney to prosecute the application identified above, and to transact all business in the Patent and Trademark Office connected therewith.

Kindly address all correspondence to:

James W. Rose
923 Elm Street
San Carlos, CA 94070

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

First name of Sole/First Inventor:

James W. Rose

Inventor's Signature:

Date:

Residence:

923 Elm Street

Citizenship: U.S.A.

San Carlos, California 94070

Post Office Address:

Same as above

First name of Second Inventor:

Theodore C. Chen

Inventor's Signature:

Theodore C. Chen

Date:

4/27/99

Residence:

2325 Devarona Place

Citizenship:

U.S.A.Santa Clara, California 95050

Post Office Address:

Same as above

66243-46820663